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FAMILY PLANNING PROGRAMS

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Men—New Focus for Family Planning Programs

Editors' Summary. It takes two. For years, many family planning programs forgot that. But now family planning programs are beginning to recognize that men, too, are vital and interested participants in family planning. With mass media promotion tailored to this new audience, these programs are reaching men with messages and methods that encourage them to support family planning actively.

It is often assumed that men have little interest in responsible parenthood. The few surveys available report otherwise. They suggest that many men favor family planning. Even in Africa—once considered the stronghold of male opposition—recent surveys in Burkina Faso, Nigeria, Kenya, and Sudan find that a substantial majority of men approve.

Four Methods for Men

Worldwide, at least one-third of all couples who practice family planning use a method that requires male participation or cooperation:

- **Condoms** are used by an estimated 46 million men with wives of reproductive age. Condoms are effective if used with perfect consistency. But some couples do not always use them.
- **Vasectomy**—voluntary male sterilization—is a permanent method used by some 41 million men. It is almost completely effective, and recent improvements are making the procedure even simpler.
- **Withdrawal** is used by an estimated 35 million couples. Pregnancy rates are often high, because the man does not always withdraw in time. Still, the method is always available and costs nothing.
- **Periodic abstinence** can be effective if a woman can monitor signs of the fertile period and if she and her husband cooperate in abstaining from sex when indicated. Most of the method's 17 million users just guess about the fertile period, however. This—and failure to abstain—leads to unplanned pregnancies.

Family Planning Programs for Men

Increasingly, family planning programs are trying to reach men—to offer male-oriented methods and to stimulate men to take more responsibility for family planning. For condoms, commercial sales remain the largest source, and sales may be increasing. Social marketing programs also sell contraceptives through retailers, but support from government or donor agencies permits lower prices. There are now almost 20 major social marketing programs, including new efforts in Ghana, Indonesia, Mexico, Nigeria, and Pakistan. They vigorously promote condoms and other methods and are making them more acceptable. At first, vasectomies were performed primarily by government programs in Asia—particularly in Bangladesh, China, India, Nepal, South Korea, Sri Lanka, and Thailand. Now in Latin America small private programs are revealing a demand for vasectomy.

Programs to encourage men's involvement in family planning are springing up throughout the world. In countries as varied as Hong Kong, Jamaica, Mauritania, Mexico, Nigeria, the Philippines, the UK, the US, and Zimbabwe, programs offer men discussion groups, lectures, drop-in centers, counseling, "Fathers' Clubs," videos, and more. Some programs are going to the workplace to reach men.

With the encouragement of a growing number of family planning programs around the world, men are showing a new concern over family size and child spacing. They also are recognizing the benefits that they as well as their wives and children can derive from family planning.

End of Editors' Summary.

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MEN'S INVOLVEMENT IN FAMILY PLANNING

Men play a major role in family planning. This obvious but often neglected fact is receiving new attention in family planning programs. Regardless of which partner actually uses a family planning method, the man often has a major say in decisions on childbearing and family planning. Evidence is limited, but it suggests that many men will take responsibility for family planning when they have the information and the means. In fact, one-third of all couples using family planning rely on a male method—condoms, vasectomy, or withdrawal—or on periodic abstinence, which requires full male cooperation (see pp. J-894–898).

Men's Role in Family Planning

In most societies the husband is usually the dominant decision-maker, and his wife is expected to abide by his decisions (41, 53, 116, 267, 276, 374). Cultural patterns vary, of course, but usually a wife's economic dependence on her husband gives him great influence in major household decisions.

This dominant male role often extends to a couple's reproductive behavior. Men have an important say in decisions about family size and the use of family planning (15, 85, 137, 241, 267, 329, 337, 374, 387, 454). In countries as varied as Hong Kong, Indonesia, Mexico, Nigeria, South Africa, Thailand, and the US, studies have found that her partner's attitude influences a woman's decision whether to use family planning (43, 92, 241, 274, 302, 346, 374). In both Mexican and South African studies the husband's attitude was the reason that women gave most often for using or not using family planning (92, 302). Among married female students in Nigeria, one of every five who were not using a modern contraceptive method said that her husband's objection was the reason (274). In Indonesia focus-group research suggests that the husband's influence on use of family planning is strong, especially early in marriage (378). Thus, even if a woman favors family planning, she may not take the initiative to use a contraceptive without her husband's consent (41, 110, 149, 323, 337). In many countries law or program policy prevents a woman from obtaining family planning services without her husband's consent (433).

Men also can influence how long their partners continue to use family planning. Family planning projects in the late 1960s and 1970s that involved men as well as women showed that men can encourage longer use (5, 111, 351). In a family planning education program in Turkey, for example, when both husbands and wives received information, the continuation rate after two years was 92 percent, compared with 86 percent when only the wives received information (111). In Iran in the late 1960s, when women requesting oral contraceptives for the first time came to the clinic with their husbands, and their husbands were asked to make sure that their wives took the pills, the continuation rate at six months was 93 percent. In contrast, among women seen alone the continuation rate was only 12 percent (351). Conversely, in places as different as Jamaica, the Philippines, and the US state of Louisiana, studies found that husbands' active disapproval led women to stop family planning (45, 198, 230). In the Philippines only half of women whose husbands tried to discourage them were still using contraception after one year compared with 72 percent of other women (198).

Do Men Favor Family Planning?

What are men's attitudes toward family planning? In the past most fertility research has focused on women. Now more surveys are questioning men, too, about their attitudes toward family planning, their knowledge, and their use of contraceptive methods.

The Caribbean Male Contraceptive Prevalence Surveys, conducted in the early 1980s (88, 146, 214, 215), plus small, earlier studies in India (6, 81), other Caribbean countries (13, 223), Latin America (136, 397), and the US (183, 239, 370), are among the few surveys of men's attitudes toward family planning. Although small in number, they suggest that many men favor family planning. In these surveys 65 to over 90 percent expressed approval.

Whether men are more likely than women to approve of family planning appears to vary. Surveys in Japan and India in the 1950s and 1960s found somewhat higher approval rates among men (306, 358). Surveys in India and in Trinidad and Tobago in the mid-1970s found higher rates among women (13, 81). All the differences were small, however.

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While most men say that they favor family planning, some do oppose it, for a variety of reasons. Some fear it will undermine their authority as head of the family or encourage their wives to be unfaithful. Others are opposed on religious grounds. Some fear harmful side effects of contraceptives. Others may want many children to prove their virility and enhance their prestige in the community (1, 13, 57, 155, 163, 199, 254, 302, 346, 372).

Nevertheless, there is little recent evidence that male opposition is a major obstacle to family planning in most areas. Among women in South Korea, Thailand, Tunisia, and several Latin American and Caribbean countries who were asked their main reason for not using contraception, very few cited the opposition of their husbands (244). Even in Africa, where male opposition to family planning is considered strong (80, 89, 155, 221, 240), recent surveys show that attitudes are changing, and many men now favor family planning, particularly for child spacing (106, 204, 254, 275, 391). In 1971-73 a national survey in Nigeria found that only one-quarter of men approved of family planning (155). In 1982, however, a small survey in Lagos, Nigeria, found that 79 percent of men supported family planning for child spacing, and 65 percent, for limiting family size (275). Similarly, in a 1970 survey of South African black men, more than half expressed disapproval (221). In contrast, a 1976 survey found that only 18 percent definitely opposed family planning. Some 57 percent favored using contraceptives (391). In Khartoum, Sudan, in 1982, 81 percent of men surveyed approved of child spacing. Only 29 percent approved of limiting family size, however (254). In Kenya in 1985, 81 percent of husbands surveyed said that they were willing to support their wives' practice of family planning (106). Among men in Ouagadougou, Burkina Faso, who were not using family planning when surveyed in 1986, 61 percent of those who had never practiced family planning or who had previously used a traditional method said that they intended to use a modern method. So did 71 percent of those who had previously used a modern method. Lack of information, rather than opposition to family planning, was the major reason given for not using a modern method (430). Three-quarters of young men in Monrovia, Liberia, and, depending on educational level, between 44 and 87 percent of young men in Ibadan, Nigeria, favored the use of contraception if young people were sexually active. In both countries these responses were similar to those of young women (197, 415).

Lack of communication between husband and wife may be a greater obstacle to family planning than male opposition. Couples who talk about the number of children they want and about family planning are more likely to use contraception and to achieve their family planning goals than those who do not (48, 55, 62, 149, 239, 250, 284, 323, 343). Several studies, most carried out in the 1960s and 1970s, suggested that many husbands and wives did not discuss sexual matters or family planning (285, 298, 299, 340, 358, 372, 373, 382). This may be changing, however. For example, in a 1970 national survey in India, only 19 percent of spouses reported discussing family planning, but by 1980 the figure had increased to 35 percent (186).

Do Men Feel Responsible for Family Planning Decisions?

Only a few surveys have asked this question, but they suggest that many men want to share responsibility for family planning decisions (54, 60, 88, 107, 146, 182, 214, 215, 243, 324, 347). For example, in the 1984 Dominican Republic Contraceptive Prevalence Survey 37 percent of men said that partners should share responsibility for family planning. Over 60 percent of the college-educated men said so (88). Overall, however, 43 percent thought that family planning was the man's responsibility alone. Some 19 percent thought that it was the woman's responsibility (88). Men in Dominica reported similar feelings (146). In Barbados and St. Kitts-Nevis somewhat higher percentages—47 and 41—thought that family planning was a joint responsibility (214, 215). In a 1978 survey in the US, almost

If men are going to share responsibility for family planning, they must start by talking with their wives—about when they want children and how many, and about what family planning methods they will use. This cartoon comes from a set of slides prepared by the Asociação Brasiliera de Entitades de Planejamento Familiar in Brazil.

three-fourths of the adult men and over half of the male adolescents interviewed thought family planning should be a joint responsibility (107). Along the Mexican-US border in 1979, most women practicing family planning said that the decision to use contraception was made jointly with their husbands (360). In similar surveys in Fiji, India, Iran, Mexico, and South Korea in the late 1970s, a majority of men in all five countries said that both partners together decided on how many children to have and what contraceptive method to use. From 50 to 88 percent of the men also said that they were willing to use a contraceptive method either all the time or alternating with their wives (435). Other studies suggest that, even though many men see decision-making as a joint responsibility, many still prefer the woman to take responsibility for actually using a contraceptive (69, 107, 115, 223, 243).

Do Men Want Larger Families?

There is no evidence that men want more children than women do. Only two national surveys have compared husband's and wife's desired family size—the 1975 Thailand Fertility Survey and the 1980 Egyptian Fertility Survey. Both found very little difference. In Thailand husbands wanted an average of 3.9 children while wives wanted 3.7 (64). In Egypt both husbands and wives wanted just over four children (138).

In the Dominican Republic the question was posed differently, but the results were similar. In the 1983-84 Contraceptive Prevalence Survey of women and the 1984 survey of men, respondents were asked if they wanted an additional child. As the table below shows, in general only slightly more men than women wanted another child. Many women, however, mistakenly thought that their husbands wanted another child. Most men and women wanted a total of two or three children (21).

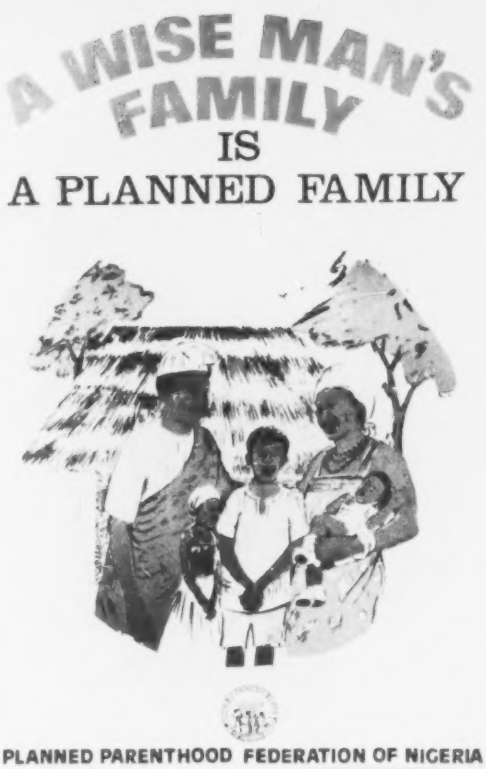
No. of Living Children	% of Women Wanting More Children	% of Men Wanting More Children	% of Women Who Think Husbands Want More Children
0	87	100	89
1	73	85	87
2	46	44	67
3	19	29	56
4	10	15	39
5	7	13	37
6+	3	10	28

Men in Barbados, Dominica, and St. Kitts-Nevis also want small families, between 2.1 and 3.1 children on average. These numbers are close to what these men consider ideal but less than what they actually expect to have (146, 214, 215):

Country & Year	Mean No. of Children		
	Desired	Ideal	Expected
Barbados 1982	2.1	2.3	3.0
Dominica 1982	3.1	3.1	4.4
St. Kitts-Nevis 1982	3.1	3.3	4.3

This pattern—the ideal number much less than the expected number, and the desired number smaller still—is typical of surveys asking the same questions of women.

Overall, these data—plus information from earlier, mostly smaller, studies in Ghana, Hong Kong, Kenya, Nigeria, the Philippines, the US, and elsewhere—suggest that differences between men's and women's average family size desires are small within a country (6, 14, 40, 60, 86, 145, 155, 370). Differences among countries and among socioeconomic groups within a country are greater. Both men and women often express a preference for more sons than daughters (6, 64, 67, 138, 413).



Family planning communication often appeals to men's pride in their role as provider and decision-maker for the family. This Nigerian poster points out that the wise man plans his family.

In focus-group sessions in Mexico both men and women favored small families in principle, particularly for the sake of the children's welfare and the wife's health. On a personal, or emotional, level, however, men's feelings were ambivalent. For example, they tended to see many children as a sign of a man's virility; they had more respect for women with large families; and they thought women with few children were bad wives. On balance, while women tended to favor small families for themselves, men more often favored large families for themselves. In a larger survey as part of the same study, however, only 14 percent of men agreed that a man usually wants more children than his wife, while 17 percent said that he usually wanted fewer (112, 302).

Economic considerations undoubtedly influence a couple's opinions and decisions about family size (47, 95), and there is no economic reason that men should want more children than women. Many men and women in developing countries still expect to derive some economic benefit from their children and view them as a source of security in old age. This expectation, however, may be stronger among women than men since women usually have fewer

earning opportunities and often outlive their husbands (52, 344). Perhaps even more relevant, the financial responsibility of raising children falls more heavily on the man in many societies (344). Village studies in India in the late 1960s and 1970s found that men were aware of the economic costs of raising children and that the economic benefits were less important to them than to the wives (298, 398). Similarly, in the 1975 Thailand Fertility Survey 35 percent of husbands saw no disadvantages in a small family, while less than 5 percent saw no advantages. In contrast, less than 4 percent of husbands saw no disadvantage in a large family, while 21 percent saw no advantages (64). Raising children in developing countries still costs less than in industrialized countries—much less than in the US, for example, where a 2-child, middle-class family will spend an estimated $99,000 (US) at 1987 prices to raise one child to age 18 (94). Nevertheless, the financial burden of child-rearing is increasing everywhere. Along with the rapid socioeconomic development occurring in many societies, people's aspirations for their children are increasing. They want their children to have longer schooling and better medical care. These goals give men a strong financial incentive to limit family size.

How Much Do Men Know About Family Planning?

Most men know about family planning, at least in the few areas surveyed. In the Dominican Republic Male Contraceptive Prevalence Survey, 90 percent of men in union could identify at least one family planning method, while in Barbados, Dominica, and St. Kitts-Nevis 79 to 80 percent of men interviewed were familiar with family planning methods in general (21, 146, 214, 215). In the 1980 Egyptian Fertility Survey 89 percent of husbands knew of at least one modern family planning method (138). Men in South Korea; Trujillo City, Peru; and the US have reported similarly high rates (182, 284, 397). As Table 1 shows, however, knowledge of specific contraceptive methods in the four Caribbean countries, Burkina Faso, Thailand, and Egypt varied considerably among both men and women. In general, more men knew of male methods, while more women knew of female methods. In Burkina Faso, however, more men than women knew about female as well as male methods, although more men knew of the male than the female methods (430). Similarly, in recent small surveys in Lagos, Nigeria, men were more aware of male methods than female methods (275, 384). Among one group over 90 percent had heard of condoms, 75 percent had heard of withdrawal, and 59 percent had heard of oral contraceptives (275).

In only a few surveys have more men known about female methods than male. In a 1982 survey in Khartoum, Sudan, 88 percent knew of oral contraceptives, but only about half knew of condoms or withdrawal. Only one of every four had heard of vasectomy (254). In South Africa also, in 1979 more husbands knew of oral contraceptives, the IUD, and injectables than of condoms (391). These findings probably in part reflect the limited access that men in these countries have to male methods.

Knowing about contraceptive methods is little use unless men actually know where to obtain services or supplies. In the four Caribbean surveys men were asked to name sources of family planning services and supplies. In Dominica almost half did not know of any. In Barbados and St. Kitts-Nevis one-quarter of men did not know of any source (146, 214, 215). (Answers to this question in the Dominican Republic have not yet been tabulated.) While these findings are limited, they suggest that programs for men need to emphasize not just information on methods but also where men can obtain supplies and services.

Table 1. Percentage of Men and Women Who Know of Specific Contraceptive Methods, Representative Sample Surveys in Seven Countries, 1975–1986

Country	Ref. No.	Year	Sex	OCs	Condom	Diaphragm	Foam	Injection	IUD	Sterilization: Female	Sterilization: Male	Rhythm	Withdrawal	Other
Barbados	214	1982	M[a]	90	96	68	83	70	61	84	76	56	77	NA
	257	1980–81	F[a]	94	83	——72——		74	74	80	62	44	50	1
Burkina Faso (Ouagadougou)	430	1986	M[b]	56	64	NA	NA	53	27	NA	NA	61	26	NA
			F[a]	54	34	NA	27	42	37	NA	NA	36	14	NA
Dominica	214	1982	M[a]	80	92	29	53	61	60	68	47	45	76	NA
	30	1982–83	F[c]	86	76	——37——		76	67	65	28	25	37	NA
Dominican Republic	88	1984	M[d]	90	88	——53——		65	57	91	29	27	40	10
	87	1983	F[a]	95	83	——65——		73	82	95	35	41	41	4
Egypt[e]	138	1980	M	89	35	——NA——		7	56	——11——		——NA——		
			F[a]	90	28	——NA——		16	71	——44——		——NA——		
St. Kitts-Nevis	214	1982–83	M[a]	92	95	56	75	66	65	64	52	49	73	0
	169	1984	F[c]	99	96	67	80	88	89	74	28	34	66	NA
Thailand[e]	64	1975	M	86	57	——20——		54	74	83	75	34[f]	——1——	
			F[a]	93	49	——23——		72	87	88	72	45[f]	——0——	

NA = not available
OCs = oral contraceptives
[a]Age 15–49
[b]Age 18–62
[c]Age 15–44
[d]Age 15–59
[e]Survey of husbands and wives
[f]Includes abstinence

What Do Men Think of Specific Contraceptive Methods?

Little information other than anecdotes exists on what men think about specific contraceptive methods. The only recent national surveys to inquire into men's attitudes toward specific methods are those in Barbados, Dominica, the Dominican Republic, and St. Kitts-Nevis. Between 50 and 80 percent of men who knew of at least one method said that they were willing to use a male method. In all four countries most of these men preferred condoms, perhaps because condoms are well-known in all these countries and men can obtain them easily. In contrast, distinct differences in the acceptability of vasectomy emerged. Nearly 15 percent of men in the Dominican Republic who were not using a male method said that they would consider a vasectomy in the future, even though far less than one percent of men had vasectomies and only 29 percent knew of the method before the survey (21). In contrast, in the English-speaking Caribbean countries very few men were willing to consider vasectomy (146, 214, 215). Differences also emerged in men's attitudes toward female methods. In the Dominican Republic, where female sterilization is the most widely used method, over 80 percent of men approved of it. In the other three countries almost half the men disapproved of sterilization but favored oral contraception, which is the most widely used female method in these countries. These results suggest that future surveys should explore whether familiarity with a method improves attitudes toward it.

In the surveys of men in Fiji, India, Iran, Mexico, and South Korea, men were asked how willing they would be to use two existing contraceptive methods—condoms and vasectomy—and two hypothetical methods—a daily pill and a monthly injectable. The most consistent finding among the five countries was that vasectomy was much less acceptable than condoms or the hypothetical methods. In Fiji and urban India the condom was preferred to the hypothetical methods, while elsewhere the hypothetical methods were preferred (435).

Where Do Men Obtain Family Planning Information?

Men usually learn about contraceptives from their wives, friends, or the mass media, but seldom from health care professionals. This finding reflects health professionals' focus on reaching women, rather than men, with family planning information. In Mexico men were more likely to obtain information from advertising campaigns, their peers, and their wives than from doctors and other health workers, who tended to be important sources for women (302). In the 1980 Egyptian Fertility Survey men said that friends and relatives were most often their sources of information, followed by radio and television. Health care workers were not an important source (138). Mass media, particularly radio, are important information sources for men in South Korea, Sudan, and South Africa, according to surveys in these countries (254, 284, 391).

In sum, it is clear that men have a major influence on family planning decisions. Most recognize the importance of family planning and are in favor of it. The available evidence suggests that there is an interested clientele for family planning programs that offer men easily accessible, high-quality services or encourage men to support their wives' use of contraception.

USE OF MALE METHODS

Many men not only play an important role in fertility and family planning decisions but also are willing to use contraception. Although female contraceptive methods are usually more heavily promoted, one-third of all couples using family planning rely on male methods—condoms, vasectomy, or withdrawal—or on periodic abstinence, primarily rhythm, which requires full male cooperation (see Table 2).

In developed countries national surveys suggest that over half of contracepting couples rely on male-oriented methods. Many couples were relying on withdrawal, periodic abstinence, and later condoms long before modern female methods became available. This experience probably still influences contraceptive decisions. Also, in some countries, particularly Japan and in Eastern Europe, modern female methods are restricted. When women were surveyed in the mid and late 1970s, condom use was most common in Japan, Denmark, and Finland but also was prevalent in Italy, Norway, Poland, the UK, and the US. Vasectomy is popular in the Netherlands, the UK, and the US (see Tables 2 and 3).

In contrast, in developing countries the spread of family planning is more recent, following the development of modern female contraceptive methods. Furthermore, family planning services have often been offered in the context of maternal and child health programs, particularly in Asia and more recently in Africa. Thus, from the beginning these programs promoted female methods. Still, a quarter of contraceptors in developing countries rely on male-oriented methods (see Tables 2 and 3).

Trends in Developed Countries

Men have long been willing to practice family planning, as the experience of Europe and North America demon-

Family planning groups everywhere are making special efforts to reach men. Here Muslim men attend a panel discussion sponsored by the Jordan Family Planning and Protection Association. (JHU/PCS)

Table 2. Estimated Percentage and Numbers (in 1,000s) of Married Women of Reproductive Age (MWRA) Relying on Any Family Planning Method and on Methods Requiring Male Participation, by Area, 1986

Region	Any Method		Method Requiring Male Participation			Condoms		Vasectomy		Rhythm		Withdrawal	
	No. of MWRA	% of MWRA	No. of MWRA	% of MWRA	% of Contraceptors	No. of MWRA	% of MWRA	No. of MWRA	% of MWRA	No. of MWRA	% of MWRA	No. of MWRA	% of MWRA
AFRICA													
Sub-Saharan Africa	8,000	10	3,000	4	38	1,600	2	0	0	400	1	1,000	1
ASIA & PACIFIC													
China	140,000	71	22,900	12	16	3,000	2	17,900	9	800	1	1,200	1
India	53,000	35	27,400	18	51	7,600	5	15,300	10	1,500	1	3,000	2
Other Indian subcontinent	6,000	12	3,000	6	50	1,000	2	500	1	500	1	1,000	2
Other Asia*	30,500	40	7,300	10	24	2,400	3	1,000	1	1,800	2	2,100	3
All region*	229,500	47	60,600	12	26	14,000	3	34,700	7	4,600	1	7,300	1
LATIN AMERICA & CARIBBEAN													
Brazil	11,000	56	1,800	9	16	400	2	10	.02	600	3	800	4
Mexico	5,000	40	1,000	8	20	200	2	25	.2	500	4	300	2
Other Latin America	7,900	41	2,800	15	35	400	2	20	.1	1,300	7	1,100	6
All Caribbean	1,600	41	500	13	31	200	5	15	.3	100	3	200	5
All region	25,500	46	6,100	11	24	1,200	2	70	.1	2,500	5	2,400	4
NEAR EAST & NORTH AFRICA													
All region	10,600	24	3,600	8	33	900	2	0	0	500	1	2,200	5
DEVELOPED COUNTRIES													
Japan	11,665	64	9,300	51	80	7,800	43	500	3	800	4	200	1
United Kingdom	8,100	83	3,900	39	47	1,700	17	1,400	14	200	2	600	6
United States	22,000	68	7,700	24	35	3,200	10	3,200	10	1,000	3	300	1
All others	82,800	64	44,500	34	53	15,500	12	1,300	1	7,000	5	20,700	16
All developed countries	124,600	66	65,400	35	52	28,200	15	6,400	3	9,000	5	21,800	12
TOTALS													
All developing countries	273,600	41	73,400	11	27	17,700	3	34,800	5	8,000	1	12,900	2
All developed countries	124,600	66	65,400	35	52	28,200	15	6,400	3	9,000	5	21,800	12
World	398,200	47	138,800	16	35	45,900	5	41,200	5	17,000	2	34,700	4

*Excludes Japan

strates. The demographic transition in these areas from high to low fertility was probably achieved mainly through the widespread use of withdrawal (420). Indeed, until just 25 years ago the few contraceptive methods available were mostly male methods—condom and withdrawal—although the diaphragm had become available to a limited extent early in the century (419). In a 1960 US survey 50 percent of married women age 18-44 reported that at some time they and their partners had relied on condoms, and 17 percent reported that they had relied on withdrawal (411). Similarly, in a 1959-60 survey in Great Britain, 49 percent of married men and women had ever used condoms, and 44 percent had ever used withdrawal (294).

Oral contraceptives and the intrauterine device (IUD), both introduced in the 1960s, for the first time offered highly effective contraceptive methods for women and separated birth control from coitus. Patterns of contraceptive use in the US, Great Britain, and some other developed countries changed radically. In the US the percentage of contracepting married women who were using oral contraceptives grew to 24 in 1965 and then to 33 in 1976, while over the same period the percentage relying on condoms fell from 22 to 11, and the percentage relying on rhythm, from 11 to 5 (247). In Great Britain a similar shift occurred, but slightly later (388), as the table at right shows:

Method	% Currently Using: 1970	1983
Oral contraceptives	19	29
IUD	4	9
Condom	28	15
Withdrawal	14	4
Periodic abstinence	5	1
Vasectomy	4	12
Female sterilization		12

Although use of temporary male methods—condoms and withdrawal—and of periodic abstinence has declined in the US and Great Britain, use of vasectomy, the permanent male method, has increased somewhat in popularity since the early 1970s. This increase suggests that many men are still willing to take responsibility for contraceptive use. In the US, the percentage of married women age 15-44 whose partners had vasectomies increased from just under 8 in 1973 to over 10 in 1982 (27). In Great Britain between 1976 and 1983 the percentage of ever-married women reporting that their partners had vasectomies increased from 8 to 12—the same increase as for female sterilization (388).

In other developed countries, including Japan and some European countries, couples still rely primarily on temporary male methods, probably because female methods are difficult to obtain. In Japan condoms have been widely

Table 3. Current Use of Any Method of Contraception Among Currently Married Women Age 15–44 and Current Use of Contraceptive Methods Requiring Male Participation, Most Recent World Fertility Survey, Contraceptive Prevalence Surveys, and Other Representative Sample Surveys, 1974–1984

Region, Country & Year	% Using Any Method	% Using Any Male Method	% Using Condoms	% Using Vasectomy	% Using Rhythm	% Using Withdrawal
AFRICA						
Benin 1981–82	20	5	0	0	2	3
Botswana 1984	29	2	1	0	0	0
Burkina Faso (Ouagadougou) 1986[a]	13[b]	9	0	NA	7	1
Cameroon 1978	3	1	0	0	1	0
Ghana 1979–80	10	2	1	0	1	0
Ivory Coast 1980–81	3	0	0	0	0	0
Kenya 1977–78	7	1	0	0	1	0
Lesotho 1977	5	3	0	0	0	3
Mauritania 1981	1	0	0	0	0	0
Nigeria 1981–82	5	0	0	0	0	0
Senegal 1978	4	1	0	0	0	0
Senegal (Sine-Saloum) (rural) 1982	1	0	0	0	0	0
Somalia (urban) 1983						
Baydhaba	1	0	0	0	0	0
Hargeisa	3	0	0	0	0	0
Kismayu	0	0	0	0	0	0
Mogadishu	0	1	0	0	0	1
Sudan (north) 1987–79	5	1	0	0	1	0
Zaire (urban) 1982–84						
Kananga	12	3	0	0	2	1
Kinshasa	36	22	0	0	15	7
Kisangani	19	8	0	0	5	3
Lubumbashi	37	11	0	0	9	2
Zimbabwe 1984	40	9	1	0	1	7
ASIA & PACIFIC						
Bangladesh 1979–80	13	5	2	1	2	0
China 1982[c]	69	11	1	7	—3[d]—	
Fiji 1974	42	11	6	0	2	3
Hong Kong 1982[c]	72	24	15	1	8	NA
Indonesia (Java & Bali) 1976	28	4	2	0	1	0
Indonesia (urban) 1983						
Jakarta	44	8	3	0	4	1
Medan	36	10	3	0	4	3
Semarang	54	10	5	0	4	1
Surabaya	47	12	6	0	5	1
Ujung Pandang	33	5	1	0	3	1
Korea, Rep. of, 1985	70	27	7	9	7	4
Malaysia (peninsular) 1974	35	9	3	0	4	2
Nepal 1981	7	3	0	3	0	0
Pakistan 1975	5	1	1	0	0	0
Philippines 1978	39	24	4	1	9	10
Sri Lanka 1982	57	26	4	3	14	5
Thailand 1984	65	9	2	4	1	2
LATIN AMERICA & CARIBBEAN						
Barbados 1980–81	47	7	5	0	1	1
Bolivia 1983	26	15	0	0	14	1
LATIN AMERICA & CARIBBEAN (continued)						
Brazil						
Amazonas (urban) 1982	53	4	1	0	2	1
Northeast region 1980	37	9	1	0	4	4
Piaui 1982	35	5	1	0	2	2
São Paulo 1978	66	19	7	0	5	7
Southern region 1981	66	17	3	0	5	9
Colombia 1980	51	8	1	0	5	2
Costa Rica 1981	66	19	9	1	6	3
Dominican Republic 1983	47	5	1	0	1	3
Ecuador 1979	35	8	1	0	5	2
El Salvador 1978	34	4	2	0	2	0
Guatemala 1983	25	6	1	1	3	1
Guyana 1975	35	5	3	0	1	1
Haiti 1983	7	5	1	0	2	2
Honduras 1981	27	4	0	0	1	2
Jamaica 1983	52	11	8	0	1	2
Mexico 1979	40	7	1	0	4	2
Panama 1984	61	5	2	0	2	1
Paraguay 1979	39	8	2	0	4	2
Peru 1981	43	23	1	0	18	4
Trinidad & Tobago 1977	55	23	17	0	3	3
Venezuela 1977	49	14	5	0	4	5
MIDDLE EAST & NORTH AFRICA						
Egypt 1980	25	2	1	0	1	0
Egypt (rural) 1980	16	0	0	0	0	0
Jordan 1983	26	6	1	0	3	2
Morocco 1983–84	27	5	1	NA	2	2
Syria 1978	20	6	1	0	3	2
Tunisia 1983	42	8	2	0	5	2
Turkey 1978[e]	50	26	4	0	0	22
Yemen Arab Rep. 1979	1	0	0	0	0	0
DEVELOPED COUNTRIES						
Belgium (Flemish part) 1975–76[f]	85	43	7	0	13	23
Bulgaria 1976[f]	76	67	2	1	4	60
Denmark 1975[g]	63	27	25	NA	1	1
Finland 1977[f]	80	36	32	1	1	2
France 1977–78[f]	71	33	6	NA	6	21
Hungary 1977[h]	74	25	4	NA	4	17
Italy 1979[f]	78	58	13	NA	9	36
Netherlands 1982[i]	78	18	7	11	NA	NA
Norway 1977–78[f]	71	25	16	2	3	4
Poland 1977[g]	75	64	14	NA	31	19
Portugal 1979–80	70	35	6	0	4	25
Romania 1978[f]	58	53	3	NA	24	26
Spain 1977[f]	51	33	5	NA	6	22
Switzerland 1980[i]	70	14	8	NA	4	2
United Kingdom (England, Wales, & Scotland) 1983[f]	83	39	17	14	2	6
United States 1982–83[k]	68	24	10	10	3	1
Yugoslavia 1976[f]	55	42	2	NA	4	36

0 = <0.5
NA = not available

[a]All women age 15–49
[b]Excludes postpartum abstinence, 26 percent
[c]Among married women 15–49
[d]Includes suppositories
[e]Among all exposed women 15–49
[f]Among currently married, once-married women under age 45
[g]Data exclude sterilization
[h]Among all women under age 46
[i]Among currently married and cohabiting women born 1945–64
[j]Responses are of wives in survey of couples
[k]Excludes Alaska, Hawaii, and women in institutions

Source: London et al. (220) except Burkina Faso 1986 (430); China 1982 (63); Hong Kong 1982 (100); Korea 1985 (192); Thailand 1984 (59); Turkey 1978 (135); United Kingdom 1983 (388).

available since the 1950s, while oral contraceptives are still illegal for family planning (70, 400). Increasingly, Japanese couples who want family planning choose condoms. In 1950, 36 percent of couples who had ever used contraception had *at some time* used condoms (304). In 1986, 58 percent of contracepting couples were *currently* using condoms (305). World Fertility Survey data suggest that condoms, withdrawal, and rhythm are still widely used in several European countries. Indeed, they may be underreported in most surveys of women. In the mid-1970s withdrawal was the most common method in Bulgaria, Italy, Romania, Spain, and Yugoslavia, used by 26 to 60 percent of married women of reproductive age (see Table 3). The condom was the most popular method in Denmark and Finland (32). In Poland rhythm was most often used—by 31 percent. Vasectomy remains relatively unimportant in Europe except in Great Britain and the Netherlands.

Use of Male Methods in Developing Countries

In developing countries during the 1970s and early 1980s roughly one in every four contracepting couples relied on a method that requires male participation—condoms, vasectomy, rhythm, or withdrawal (see Table 2). This estimate is based largely on the World Fertility Survey and Contraceptive Prevalence Surveys, which interviewed married women of reproductive age (see Table 3 and **Population Reports**, *Fertility and Family Planning Surveys: An Update*, M-8, September-October 1985). There are substantial differences among regions and countries, however. Differences in availability of supplies and services are probably a major reason. Cultural differences also are important.

In sub-Saharan Africa many people do not have access to family planning services, and overall contraceptive use is slight. Even so, an estimated 40 percent of those using family planning use a male-oriented method—condoms, rhythm, or withdrawal, but not vasectomy. Also, postpartum abstinence for spacing between births, which requires male cooperation, is widely practiced (279).

Similiarly, in the Near East and North Africa overall contraceptive use levels are rather low. About one-quarter of married women of reproductive age use family planning. One-third of these couples, however, are relying on a method requiring male involvement, chiefly rhythm. As in sub-Saharan Africa, vasectomy is rare (see Table 2).

In most Asian and Pacific countries, where family planning services are more accessible, contraceptive use is widespread. Male methods are relatively less important than in Africa and the Near East. They are used by an estimated 11 percent of married couples of reproductive age, but this amounts to about one in every four contracepting couples (see Tables 2 and 3). Among developing countries, India, at an estimated 10 percent, has the highest percentage of married women of reproductive age relying on vasectomy (see Table 2). India is followed by China and South Korea at 9 percent. The figure of 9 percent for China is based on 1983 service statistics (303). The 1982 National One-per-Thousand Population Fertility Sampling Survey reported that 7 percent of married women age 15-49 relied on vasectomy. There was substantial variation among regions. Heavily populated Sichuan province reported the highest rate, at 31 percent (63, 309). In the 1985 Korea Fertility and Family Health Survey, 9 percent of married women age 15-44 reported relying on vasectomy (192), up three percentage points from 1979 (220). Several other Asian countries—Nepal, Sri Lanka, and Thailand—have reported vasectomy prevalence between 3 and 4 percent. Condom use was more common than in other developing areas, with the highest rates—4 to 7 percent—reported in Fiji, part of Indonesia, South Korea, the Philippines, and Sri Lanka. Rhythm and withdrawal are more common than in Africa and the Near East. The highest prevalence has been reported in the Philippines and Sri Lanka. In both countries 19 percent rely on one or the other of these two methods.

In Latin America and the Caribbean, as in Asia, an estimated 11 percent of couples of reproductive age in union use male-oriented methods, according to an estimate based on surveys of women in union. Again as in Asia, this accounts for one in every four contraceptors (see Tables 2 and 3). In most of the region the traditional methods, rhythm and withdrawal, are more common than condoms and vasectomy. In the most recent surveys in Peru 22 percent and in Bolivia 15 percent were using either rhythm or withdrawal—over half of all contraceptors in both countries. From 7 to 14 percent were using one of these methods in Colombia, Costa Rica, Ecuador, São Paulo and the southern region of Brazil, and Venezuela. Condom use varied from virtually zero in Bolivia and Honduras to 8 percent in Jamaica, 9 percent in Costa Rica, and 17 percent in Trinidad and Tobago. At the time of the surveys vasectomy services were not widely available in the region, and thus reported rates were negligible. Vasectomy services are becoming more available, and rates may now be rising.

***Sathi*—"companion"—is the condom brand marketed by the new social marketing program in Pakistan. Advertising emphasizes child spacing: "Until you want another child, rely on *Sathi*."**

New Surveys of Men Underway, Planned

Men have seldom been asked what they know and do about family planning. This lack of information has made it difficult to design programs for men. Now, however, a number of surveys of men are underway or planned, including the following:

- In Jordan husbands of women who participated in the 1983 Contraceptive Prevalence Survey have been interviewed. Results will soon be available (444).
- In Haiti a 1987 contraceptive prevalence survey will include a subsample of men (437).
- In Burundi and Mali, Demographic and Health Surveys will interview a subsample of men as well as women (450, 451).
- In The Gambia, Guatemala, and Zimbabwe, surveys of young men and women are underway (441, 444). A similar survey is planned for Jamaica during 1987 (444).
- In Nigeria, in Bendel State, a survey of men is in progress (445).

Survey questions cover a wide range of topics. Many are similar to those in surveys of women, covering basic family planning knowledge, attitudes, and practice. Some of the new surveys also cover attitudes toward sexual activity, information on pregnancies caused by the men, and knowledge of sexually transmitted diseases. Others are gathering detailed information on condom use. In Haiti, for example, one objective of the survey is to discover the reason for the discrepancy between the large number of condoms distributed through the family planning program and the low usage rate reported by women (437). The survey in Bendel State, Nigeria, will help determine the need for a program for men (445).

These surveys should yield valuable information about these countries. Still, surveys of men in many more countries are needed to guide programs and to paint a more complete picture of the attitudes and behavior of men around the world.

The relative importance of male methods may be declining in developing countries, a trend similar to that seen earlier in developed countries (see p. J-894). The trend is apparent in data from 18 countries, including Bangladesh, Colombia, Mexico, Morocco, and Thailand, that have conducted more than one national fertility and family planning survey. In all these countries contraceptive use among married couples is increasing and in some cases the percentage of married couples using a male method also is increasing. Yet among contraceptors the proportion using a male method has declined. The main reason is the sharp increase in female sterilization facilitated by the development and dissemination of simple female sterilization techniques starting in the early 1970s (220, 442).

Surveys of married women, such as the World Fertility Survey and most Contraceptive Prevalence Surveys, may underestimate use of male methods. Now a small but growing number of surveys are obtaining comparable information directly from men. In surveys of four Caribbean countries—Barbados, Dominica, the Dominican Republic, and St. Kitts-Nevis—and in Burkina Faso, men reported rates of condom use three or more times higher than reported by women (see Table 4). Similarly, in a 1983 survey in Bangladesh that interviewed husbands and wives simultaneously but in separate rooms and also married men and women without their spouses, men in both groups reported higher rates of condom use than women: 7 percent of husbands versus 4.5 percent of their wives, and 4.1 percent of men versus 2.8 percent of women among those whose spouses were not interviewed (16, 97). Surveys of women may underreport other male methods, too. Withdrawal may be underreported since some people do not think of it as a contraceptive method (310).

Use of Male Methods Among Young People

Among sexually active young men, the little information available suggests that, when they use contraception, they tend to use condoms or withdrawal rather than relying on a female method. So far three surveys have been conducted among young people in developing countries. Several more are planned or underway (see box, this page). In Monrovia, Liberia, 63 percent of young men said that they were sexually active. Of the 22 percent in this group who were using contraception, 13 percent were using condoms (415). In Ibadan, Nigeria, 60 percent of young men said that they were sexually active. Of the 42 percent who were using contraception, 24 percent were using condoms (197). In contrast to the men, young women in both African countries who were contracepting most often reported using oral contraceptives (197, 415) (see Table 5). In Mexico City 16 percent of young men said that they were sexually active. Of the 82 percent who were using contraception, 33 percent said they were relying on rhythm or withdrawal; 14 percent, on oral contraceptives; and 10 percent on condoms (245) (see Table 5). Young men in all three countries reported much higher rates of condom use than young women.

In the US, a condom or withdrawal is often the first contraceptive method that young people use. In a 1979 survey of women age 15-19 and men age 17-21 in metropolitan areas, less than one-half of either sex had used a contraceptive method at first intercourse, but nearly three-quarters of those who had done so had used condoms or withdrawal (426). Among US women age 15-44 surveyed in 1982, 41 percent of those who had used some contraceptive method at first intercourse had used condoms; 24 percent had used withdrawal (246). In a 1986 national survey of US adolescents age 12-17, nearly half of the sexually active boys and one-quarter of the sexually active girls reported that condoms were the contraceptive method they most often used (296).

CONTRACEPTION FOR MEN

To be effective over the long term, most family planning methods depend on mutual consent of both the man and woman. Ideally, the couple should decide together, with the advice of health care providers if necessary, which

Table 4. Percentage of Men and Women Reporting Current Use of Specific Methods of Contraception, Representative Sample Surveys, 1980–1986

Country	Ref. No.	Year	Sex	Any Method	OCs	Condom	Diaphragm	Foam	Injectable	IUD	Sterilization Female	Sterilization Male	Rhythm	Withdrawal
Barbados	214	1982–83	M[a]	38	11	11	1	3	1	2	6	1	1	2
	257	1980–81	F[a]	37	13	4	—2—		2	3	12	0	—1—	
Burkina Faso (Ougadougou)	430	1986	M[b]	35[c]	3	4	NA	NA	0	1	NA	NA	22	3
			F[a]	13[c]	2	0	NA	1	0		NA	NA	7	1
Dominica	214	1982	M[a]	31	9	10	0	0	2	0	5	0	1	2
	30	1982–83	F[d]	37	12	3	—1—		7	2	11	0	1	1
Dominican Republic	88	1984	M[e,f]	22		9						0	6	7
	87	1983	F[a]	28	5	1	—0—		0	2	17	0	1	1
St. Kitts-Nevis	214	1982–83	M[a]	40	15	17	0	2	1	1	1	0	1	1
	169	1984	F[d]	33	16	5	—2—		2	3	—2—		—3—	

OCs = oral contraceptives
0 = < 0.5
[a]Age 15–49
[b]Age 18–60
[c]Excludes postpartum abstinence, M: 25 percent; F: 26 percent
[d]Age 15–44
[e]Age 15–59
[f]Only male methods reported

Table 5. Percentage of Sexually Active[a] Youth Reporting Use of Specific Contraceptive Methods, Liberia, Mexico, and Nigeria, 1981–1985

Country & Year (Ref. No.)	Sex	Sexually Active	Using Any Method	OCs	Condoms	Injectable	IUD	Rhythm/ Withdrawal	Other
Liberia 1984	M	63	22	7	13	NA	1	2[b]	0
(415)	F	57	38	29	2	NA	5	2[b]	1[c]
Mexico 1985	M	16	82	14	10	7	3	33	16[c]
(245)	F	4	75	15	2	8	8	35	6[c]
Nigeria 1981–82	M	60	42	11	24	NA	NA	5	3
(197)	F	41	62	38	13	NA	NA	7	4

Note: Liberia: Stratified household survey of nonstudents and classroom survey of students, all age 14–21, in Monrovia. Mexico: Probability sample survey of households with youth age 15–19 in Mexico City. Nigeria: Survey of self-selected respondents age 14–21 in Ibadan area.
NA = not available
[a]Reporting coitus at least once a month
[b]Includes folk methods
[c]Diaphragm, foam, cream, jelly

method is best for them at each stage of their reproductive lives—regardless of which partner actually uses the method. Still, three methods are considered primarily male methods: the condom, vasectomy, and withdrawal. Another method, periodic abstinence, or Natural Family Planning, depends on both partners agreeing to abstain from sexual intercourse during the woman's fertile period.

The Condom

The condom has been used for contraception for at least 250 years and as protection against sexually transmitted diseases even longer than that (114, 117, 119, 237, 312, 341). Today high-quality condoms are available in a range of sizes, thicknesses, shapes, textures, and colors to appeal to different customers. They include plain and reservoir-ended, straight-sided and shaped, smooth and textured, dry and lubricated brands. Most manufacturers produce two sizes. Modern condoms are strong and durable. In temperate climates they have a shelf life of three to five years when properly stored. They deteriorate faster at higher temperatures, however, and particularly when exposed to humidity, light, oxygen, and certain chemicals (319) (see **Population Reports**, *Update on Condoms—Products, Protection, Promotion*, H-6, September-October 1982).

A recent addition to the range of condoms is the spermicidal condom. The lubricant contains the spermicide nonoxynol-9, commonly used in spermicidal foam, gels, suppositories, and sponges. This type of condom has been available in the United Kingdom since 1977 through London International Group (formerly London Rubber Company), which now also markets it in several European and other countries including Thailand (39). The first brand in the US was introduced in 1982 by Schmid Laboratories (3, 134). Schmid now exports it to several developing countries including Costa Rica, Panama, and the Philippines (23). Ansell Americas markets a similar condom in the US and other countries. It has also started marketing, in several European countries and Venezuela, a condom containing a larger amount of spermicide, placed inside the condom rather than mixed with the lubricant (317).

About 46 million couples now use condoms. Of these, 60 percent live in developed countries, mainly in Japan, the US, and the United Kingdom; 40 percent live in developing countries, mainly in Asia (see Table 2).

Condoms have many advantages:

- They are simple to use.
- They are safe.
- They are effective when used correctly at every coitus.
- They help to prevent transmission of sexually transmitted diseases, including the infection that causes acquired immune deficiency syndrome—AIDS.
- They do not need any medical supervision.
- They can be obtained cheaply, often through a variety of commercial outlets including shops, vending machines, and mail-order as well as in clinics (see pp. J-906–908).

Condoms can be very effective in preventing pregnancy. Although there are no data available on condom breakage during actual use, pregnancy rates as low as 0.4 to 2 pregnancies per 100 couple-years of use have been recorded (143, 231, 290, 291, 381, 395). These low rates suggest that condoms rarely break during use.

Failure rates are often higher, however—between 3 and 12 per 100 couple-years in major studies (128, 394, 395). Unintended pregnancies occur primarily because couples do not use condoms consistently. Probably because some couples use condoms more consistently than others, failure rates vary with such user characteristics as age, desire for more children, and length of use (122, 124, 290, 291, 394, 395). Some men may use condoms inconsistently because they find that the condom reduces sensitivity. Also, some couples dislike interrupting sexual relations to put on the condom.

Condoms Protect Against Sexually Transmitted Diseases

In addition to preventing pregnancy, condoms protect against sexually transmitted diseases, including AIDS (see **Population Reports**, *AIDS—A Public Health Crisis*, L-6, July-August 1986). Both men who use condoms and their partners have lower rates of gonorrhea, trichomoniasis, syphilis, and herpes than those who do not use condoms or who use them only occasionally (31, 91, 141, 181, 292, 352). Also, in vitro studies show that herpes virus and human immunodeficiency virus, which causes AIDS, do not pass through the condom membrane (10, 71, 72, 73, 74, 314). Spermicidal condoms or spermicide used with condoms probably offers added protection in the rare event that a condom breaks. Spermicides inactivate many disease-causing organisms (56, 68, 76, 147, 174, 308, 314, 359).

Many health workers are now encouraging both heterosexual and homosexual couples to use condoms to protect against sexually transmitted diseases and AIDS in particular (2, 125, 234). In the US and UK, television stations and major newspapers and magazines are beginning to accept condom advertisements that stress AIDS prevention (see p. J-906).

Other Benefits of Condoms

As well as protection from unwanted pregnancy and sexually transmitted diseases, condoms have other benefits:

- For women, condoms can protect against pelvic inflammatory disease (PID). PID is caused by sexually transmitted disease organisms that pass through the cervix into the upper reproductive tract (207). Condom use also may prevent or slow the development of cervical cell abnormalities that could lead to cervical cancer (328).
- Condoms used in late pregnancy may prevent amniotic fluid infection, which can lead to premature delivery and can endanger the life of the newborn child (255, 256).
- Condoms help to prevent premature ejaculation, since they reduce sensitivity somewhat during intercourse (117, 228).

In the last two or three years condoms may have become more popular. This is at least partly because condoms are now more available, and marketing campaigns are creating a more favorable image (see p. J-907). Also, more people are becoming aware of the protection that condoms offer against AIDS and other sexually transmitted diseases. In the US, for example, estimated annual retail sales increased 25 percent between 1982 and 1984, rising from $225 million to $282 million (US). Sales continue to increase (82). The US Agency for International Development, major supplier of condoms to family planning programs in developing countries, has more than doubled its purchases, from 1.5 million gross in fiscal year 1981-82 to 3.9 million in fiscal year 1985-86 (318). This increase reflects growing demand from developing countries. Both India and China are increasing their production capacity in anticipation of greater demand (342).

Vasectomy

Vasectomy—surgical sterilization for men—is safe, effective, and simple. As a permanent family planning method, it is well-suited to couples who want no more children. Failure rates are very low, and complications are rare. Vasectomy is *not* castration and does *not* affect sexual activity. Despite its safety and effectiveness, however, in most of the world vasectomy is not widely used. Worldwide an estimated 41 million women of reproductive age have partners with vasectomies, but most of them are in four countries—the US, the UK, China, and India (see

¿OTRO?...
LA DECISION ES TUYA....
UNA POSIBILIDAD
LA VASECTOMIA
LA DIFERENCIA ENTRE TENER HIJOS Y SER PADRE
COMIENZA CON LA PLANIFICACION
ACUDA A SU CENTRO DE SALUD, CLINICA U HOSPITAL MAS CERCANO
SECTOR SALUD

"Another one? It's your decision . . . . Vasectomy is one possibility," says this Mexican poster. As services become more available, more men in Latin America are choosing vasectomy.

Table 2). By comparison, about 100 million married women of reproductive age have been sterilized themselves (see **Population Reports**, *Minilaparotomy and Laparoscopy: Safe, Effective, and Widely Used*, C-9, May 1985). Is the reason for little use of vasectomy a lack of motivation among men or lack of information and services? Probably both. Where vasectomy programs are available and men can receive accurate and sympathetic information, counseling, and follow-up, more and more are choosing vasectomy (see pp. J-908–911).

Vasectomy is a relatively minor surgical procedure that can be performed under local anesthesia in 5 to 15 minutes. A small incision is made in the scrotum, and the vas deferens, the tube that carries sperm from each testes to the urethra, is severed. Both of the severed ends are sealed, usually by electrocoagulation or ligation. The procedure is repeated on the other vas. The small scrotal incision is closed, and after an hour or two of rest, the man can return home. Sperm are produced as before, but because the vasa are blocked, sperm cannot pass into the ejaculate. (See **Population Reports**, *Vasectomy—Safe and Simple*, D-4, November-December 1983.)

Pregnancy rates after vasectomy are very low—usually less than one percent. Thus vasectomy is one of the most effective methods of family planning (218, 332). Most pregnancies occur in the first two or three months after the procedure. This is because sperm remain in the reproductive tract on the urethral side of the obstruction. Men may have to ejaculate 15 to 20 times before all sperm are expelled (126, 168, 188). Therefore couples must use another contraceptive method for 15 to 20 ejaculations, or men must have their semen checked for sperm at a laboratory six to eight weeks after the vasectomy.

Serious complications after vasectomy are rare (150). Shortly after the procedure about half of men experience local bruising, swelling, and pain—all of which subside in a few days. More severe complications—hematoma (a mass of clotted blood); epididymitis (inflammation of the epididymis, the coiled tube beside the testes through which sperm pass to reach maturity), or infection—occur in less than 5 percent. Careful surgical and sterile technique minimizes even this small risk (218).

Sperm granulomas sometimes form after vasectomy, either at the vasectomy site or in the epididymis. These nonbacterial abscesses, consisting largely of sperm, skin cells, and lymphocytes, are caused by sperm leaking into surrounding tissue. While most are tiny and cause no problem, a small proportion of men with granulomas experience some discomfort. This usually subsides spontaneously (339). More serious are channels that occasionally develop through the granuloma. The channels form a new passageway for sperm and restore fertility (144). Also, granulomas in the epididymis can prevent successful vasectomy reversal by obstructing the passage of sperm or by damaging sperm cells (345, 356). Granulomas at the vasectomy site, however, act as a reservoir for sperm and may help to prevent epididymal granulomas (345, 356).

No long-term adverse effects of vasectomy have been observed. Recent, large epidemiologic studies in men have laid to rest fears that vasectomy might increase the risk of heart and other circulatory system disease or disorders of the immune system. It had been suspected that these problems might result from the development of sperm antibodies after vasectomy, since studies of monkeys found an increase in atherosclerosis (build-up of fatty materials on artery walls) after vasectomy (428, 431). The largest and longest study compared over 10,500 vasectomized men in the US with an equal number of controls. It found that, 5 to 10 years after the procedure, vasectomized men were no more likely to develop heart disease, cancer, or disorders of the immune system than men who had not been vasectomized (226, 227). A recent community study in South Korea, where lifestyles and diets differ markedly from those in the US, confirms that vasectomy has no adverse effect on the cardiovascular system (311).

A few men request vasectomy reversal. Using sophisticated surgical techniques and instruments such as an operating microscope, surgeons have been able to rejoin the vasa and restore fertility in about 50 percent of selected cases (22, 185, 209, 278, 293, 355). Since reversal requires difficult and expensive surgery, however, and success cannot be guaranteed, vasectomy should be considered a permanent contraceptive method.

New Vasectomy Techniques

Research is underway to develop new methods of vasectomy that are even safer, easier to perform, and easier to reverse than current techniques. The most promising approaches are:

- Reaching the vasa through a puncture rather than an incision;
- Blocking only one end of each vas;
- Nonsurgical blocking of the vasa with chemicals, and
- Implanting devices into the vasa that block passage of sperm.

Researchers in China have developed a vasectomy technique that can be performed with a puncture, not an incision. This technique reduces bleeding, speeds healing, and appeals to men who fear the incision. A specially designed fixing clamp encircles and holds the vas without penetrating the skin. The scrotum and vas sheath are punctured with a sharp-ended hemostat and stretched open. The vas is then lifted out of the scrotum and sealed by ligation or coagulation. This procedure causes very little damage to scrotal tissue. Because the puncture is much smaller than the standard 0.5 to 1.0 cm vasectomy incision, the wound heals rapidly without sutures. Less than one percent of men experience hematomas or skin infections. Since 1971 between 4 and 8 million men in China have undergone vasectomy by this technique (151, 152). In 1986 the Association for Voluntary Surgical Contraception conducted the first training course in this technique for non-Chinese physicians in Bangkok. One physician each from Bangladesh, Nepal, Sri Lanka, and the US attended, as did several from Thailand (151).

Another modification of standard vasectomy procedure is open-ended vasectomy, in which the testicular end of the vas is left unsealed while the abdominal side is sealed as usual. The two cut ends of the vas are separated by the muscular vas sheath to eliminate the possibility of their rejoining. Spontaneous rejoining of the ends is as rare as with conventional techniques—occurring in less than one percent. In a large comparative trial men vasectomized with the open-ended technique had about half the rates of epididymal congestion and of painful granuloma as men

Research on New Male Contraceptive Methods

Researchers are seeking an effective, easily used, coitally independent, reversible contraceptive for men. Research is concentrating on:

- hormonal suppression of sperm production and
- chemical interference at the sites of sperm production and maturation.

Hormonal Suppression of Sperm Production

Analogues of luteinizing-hormone releasing hormone (LHRH) can suppress sperm production by interfering with the action of LHRH. LHRH, which is produced in the hypothalamus, controls the release of follicle-stimulating hormone (FSH) and luteinizing hormone (LH) from the pituitary. These in turn stimulate the release of testosterone and other steroid hormones necessary for sperm production.

The most promising LHRH analogues to date are LHRH antagonists—substances similar to LHRH that block its action (264, 401, 416). Two recently produced antagonists completely stopped sperm production in monkeys (17, 403). Only one, preliminary clinical trial, involving nine men, has been carried out so far. In it the antagonist lowered testosterone levels substantially. Changes in sperm levels were not measured (232).

A major difficulty with LHRH analogues is that, by suppressing testosterone production, they also suppress men's libido and potency and affect secondary sex characteristics. To counteract this, another hormone, usually a testosterone ester, must be taken along with the LHRH analogue (36).

Steroid hormones—androgens, progestins, and estrogens—also inhibit FSH and LH production in men and so can suppress sperm production. Most promising are androgens given alone or combined with a progestin.

Several clinical trials indicate that testosterone esters such as testosterone enanthate and testosterone cypionate can reversibly suppress sperm production without causing major side effects (28, 321, 401, 416). The World Health Organization (WHO) is planning the first clinical trial of a testosterone ester (33, 46).

Two major problems remain. First, complete sperm suppression cannot be achieved in all men. A 200 mg per week dose of testosterone enanthate, for example, completely stops sperm production in only 50 percent and reduces it somewhat in another 40 percent of men (289). Second, the testosterone esters so far tested must be given as weekly injections, which is not practical for most men. One possible solution successfully tested in monkeys is injectable microspheres, which slowly release the drug (212, 213). The US National Institute of Child Health and Human Development is about to begin testing microspheres to deliver testosterone to men whose testes produce too little of the hormone (49). Another possible solution is development of a longer-acting ester (28). WHO has recently prepared a series of new esters. A single injection of one of these maintained normal testosterone levels in castrated monkeys for four months (83).

Several clinical trials have tested a variety of progestin-androgen combinations. The best sperm suppression and fewest side effects come with the progestin depot medroxyprogesterone acetate (DMPA) and either testosterone enanthate or testosterone cypionate. DMPA also is marketed as an injectable contraceptive for women (see **Population Reports**, *Long-Acting Progestins—Promise and Prospects*, K-2, May 1983). No progestin-androgen combination completely suppresses sperm production, however (28, 83, 288, 401, 416). Testosterone plus estradiol is an alternative. In monkeys this combination suppressed sperm production, causing infertility without side effects (96).

Clinical studies also have been conducted with a 19-nortestosterone (19NT) ester with both progestogenic and androgenic activity (190, 401). Although no more effective at suppressing sperm production than testosterone esters, the 19NT ester is longer lasting. Injections could be given every three weeks (190).

Inhibin is a peptide, produced in the testes, that inhibits its release of FSH. Theoretically, it should suppress sperm production without affecting testosterone secretion. Thus libido and potency should be maintained without androgen supplements (321). After many years of research, in 1985 several research groups isolated inhibin and identified its basic structure (301, 401). Work is now underway, using recombinant DNA technology, to produce larger quantities so that it can be tested in animals (301).

Chemical Interference With Sperm Production

Gossypol, derived from the cotton plant, interferes with sperm production without affecting hormone levels. Chinese reports in the late 1970s (258) generated hope for a major breakthrough in male contraception. Now clinical trials have found that gossypol has two major adverse effects: (1) some men develop hypokalemia (low potassium concentration in the blood), and (2) sperm production in some men does not resume when they stop taking gossypol. As a result, clinical trials are now limited, and research is focused on finding whether a nontoxic component of gossypol or a nontoxic analogue might be effective and reversible (83, 401). Other compounds that directly interfere with sperm production have been tested but discarded because of toxicity (321, 396, 401), but research on still others continues.

Other Approaches

Scientists also have looked at immunological approaches to male contraception. Immunization against FSH has failed to suppress sperm production in monkeys, however (263). Another approach—the induction of antisperm antibodies—currently appears more feasible in women than men (19, 20, 123).

In summary, research toward a new male contraceptive has a long way to go. Questions of effectiveness must be resolved, and a convenient delivery system developed. Also, any new drug must meet the increasingly stringent requirements of regulatory agencies.

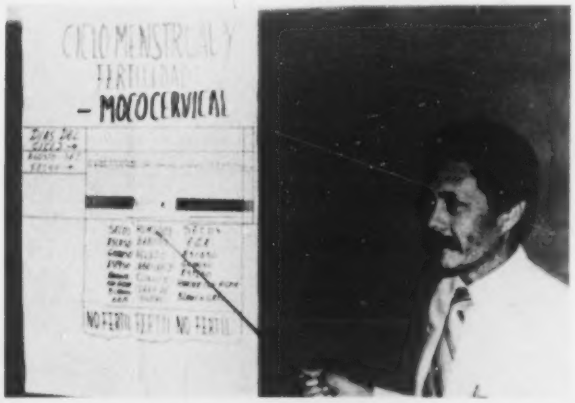
vasectomized with the standard technique (93). Because less tissue is damaged, the procedure could be more reversible than standard vasectomy techniques (93, 249, 354). Increased sperm leakage might lead to more sperm antibody formation, however. Given epidemiological evidence that these antibodies cause no health problems, this need not cause concern, but it may deserve investigation (18, 248).

Blocking the vas with chemicals is done primarily in China. Since 1972 over 500,000 men have undergone chemical sterilization (216). The procedure involves no incision. Instead, the scrotum and vas sheath are punctured with a needle, and a mixture of phenol and cyanoacrylate is injected directly into the lumen of each vas. Scar tissue develops, blocking passage of sperm. The failure rate of 2.4 percent, reported in a study of 577 men, is higher than rates with surgical vasectomy techniques, however (152). More research is needed to determine whether these chemicals have any long-term side effects.

Research is also underway on devices that can be implanted in the vas and later removed to restore fertility. Over 20 different devices have been investigated in the US, South Korea, and India since the 1970s. Difficulty inserting the devices and completely blocking sperm complicated most of these efforts (118). Currently, the most promising device is the Shug. The Shug consists of two silicone plugs connected by a nylon thread. The two plugs are inserted into the lumen of each vas with a needle while the thread stays outside the vas sheath. The plugs can be removed by making two small incisions in the vas and pulling the thread (423). In studies with animals, the Shug blocked sperm completely and was easy to insert and remove. When the device was removed after several months, sperm counts returned to normal in all animals (424). Preliminary clinical trials in men are scheduled to begin by mid-1987 in Brazil and the US. They will test the effectiveness of the Shug over a 3- to 6-month period (422).

Periodic Abstinence

Periodic abstinence involves avoiding sexual relations during the fertile portion of a woman's menstrual cycle. It requires full cooperation and participation of both husband and wife. The oldest and most widely known formal method, calendar rhythm, was developed in the 1930s (189, 273). Beginning in the 1950s, newer methods have been developed and are now often called Natural Family Planning (38, 108, 219). Currently an estimated 17 million couples worldwide are using some form of periodic abstinence—mostly a simple form of calendar rhythm consisting of abstaining from intercourse around the middle of each menstrual cycle (see Table 1).



In Costa Rica an instructor for the Centro de Orientación Familiar San José explains the changes in cervical mucus that accompany the fertile period of the menstrual cycle. Periodic abstinence, or Natural Family Planning, requires not only monitoring signs of fertility, such as cervical mucus changes, but also full cooperation of both partners to abstain from sex when indicated. (JHU/PCS)

To practice periodic abstinence, couples must be able to predict the fertile period. Calendar rhythm involves calculations based on a woman's previous menstrual cycles to estimate the time of ovulation (225, 330). With the newer methods, couples monitor physiological changes that occur with ovulation—a rise in basal body temperature, an increase of slippery cervical mucus, changes in the position and texture of the cervix, and other signs including intermenstrual bleeding, midcycle abdominal pain (*Mittelschmertz*), and breast tenderness (187). The basal body temperature method and the cervical mucus method (also known as the Ovulation Method or the Billings Method) rely primarily on one sign to indicate ovulation (37, 38, 224, 225). The sympto-thermal method, in contrast, uses various signs, especially temperature and cervical mucus changes, to estimate the fertile period (187, 331). With all these techniques couples must learn to monitor the various signs of fertility, interpret them correctly, and abstain during the fertile period. No current technique predicts the fertile period precisely. Therefore couples must abstain longer than the three to four fertile days in each cycle. Some couples use barrier methods around the time of ovulation rather than abstain—a practice sometimes called Fertility Awareness. In Japan many couples use condoms this way (70, 305, 432).

The effectiveness of periodic abstinence methods depends on the couples' motivation, their ability to detect signs of the fertile period, and, with calendar rhythm, the regularity of the menstrual cycle. Highly motivated couples who have received good instruction often can use the methods very successfully. Generally, however, pregnancy rates are higher than with most other family planning methods. In major recent studies about 15 percent of women using the sympto-thermal method became pregnant within a year, as did about 25 percent of those using the cervical mucus method (177, 179, 233, 325, 399, 417).

Periodic abstinence carries no health risks for users apart from those of unplanned pregnancies. Questions have been raised, however, about possible risks to pregnancies accidentally conceived during use of these methods. Such conceptions are likely to occur when couples "take chances" either very early or very late in the fertile period. At these times sperm or ova may remain in the genital tract for several days before fertilization—a condition linked to birth defects and pregnancy wastage in animals (42, 44, 130, 357). Studies in humans have yielded conflicting results. In a recent US cohort study 2 of 338 children born after failures of periodic abstinence had trisomy 21, a type of chromosomal defect. This is almost five times the rate among nearly 12,000 children whose parents had not used contraception before conception. Chromosomal examinations were conducted only for children with clinical abnormalities (140). Other recent studies, however, find no excess risk of birth defects in the children of periodic abstinence users (194, 418). Similarly, some studies report higher than expected rates of spontaneous abortion in periodic abstinence users (129, 131), while others do not (271, 418).

More precise methods of pinpointing ovulation could make estimates of the fertile period more accurate and reduce the amount of abstinence required. This improvement would help make periodic abstinence methods more popular and more effective. Several electronic thermometers and calculators for measuring basal body temperature and figuring cycle length are now on the market in some developed countries (270, 315). Whether these devices are easier to use and more accurate than standard thermometers and manual calculations has not been studied, however. Several tests measuring concentration of luteinizing hormone in urine are now available for home use (75, 270, 315). These tests are designed to help subfertile women achieve pregnancy. They are still too expensive and impractical for routine use to prevent pregnancy.

Research is also underway on:

- Measuring the amount of cervical and vaginal secretion with a calibrated disposable aspirator. Preliminary research shows that increases in the *amount* of cervical and vaginal secretion correlate more precisely with the fertile phase of the menstrual cycle than changes in the *quality* of cervical mucus or the position and texture of the cervix (416).
- Identifying changes in concentrations of glucose, sodium, and potassium in saliva during the menstrual cycle (416).
- Developing a urine test to measure the hormone pregnanediol-3-glucuronide (98).
- Developing a technique for measuring prolactin in blood as a sign of returning fertility in breast-feeding women (98).

Withdrawal

Coitus interruptus—or withdrawal, as it is commonly known—may be the oldest means of preventing pregnancy. A Biblical passage (Genesis 38:8-9) may be referring to its use: Onan "spilled his seed on the ground" to avoid impregnating his deceased brother's wife, whom he had been ordered to marry. Islamic legal writings dating back several centuries sanctioned its use (253). The method was widely used in past centuries in Europe, contributing to the demographic transition (310, 313). Today an estimated 35 million couples rely on withdrawal (see Table 2).

Couples who use the method engage in sexual intercourse until ejaculation is impending. Then the man withdraws his penis from the woman's vagina, and ejaculation occurs completely away from her vagina and external genitals. The method has several advantages:

- It is available in any situation at no cost.
- It requires no supplies.
- It does not require help from health care workers.

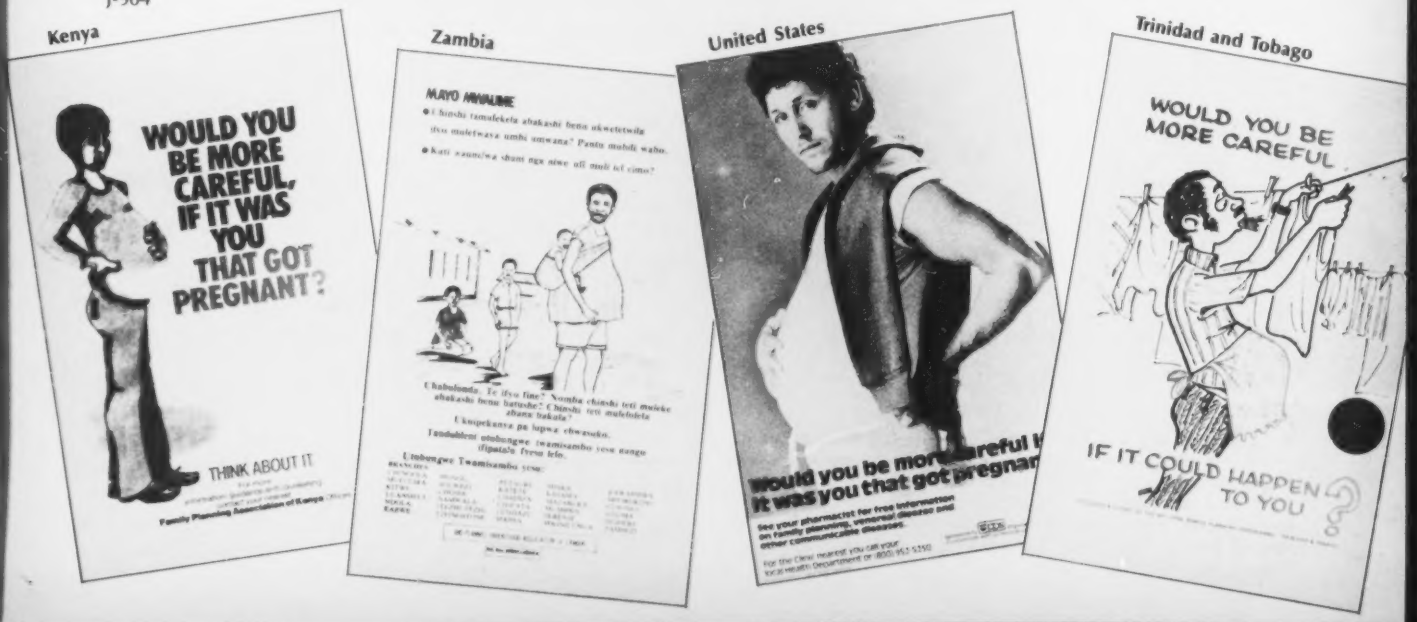
Many health care personnel dismiss withdrawal as a contraceptive method because it generally has a higher failure rate than such methods as voluntary sterilization, oral contraceptives, IUDs, condoms, diaphragms, and spermicides. About 23 pregnancies per 100 couple-years of use may be typical (409, 410). A rate as low as 6.7 pregnancies per 100 couple-years has been observed, however, in a study of married British women age 25-39 (395). The usual reason for failure is that the man does not withdraw in time.

Another reason sometimes suggested for unintended pregnancies is that live sperm may be present in pre-ejaculatory fluid. This is unlikely, however. A study examining pre-ejaculatory fluid found no motile sperm (66).

A disadvantage of the method, in addition to its usually high failure rate, is that it interrupts sexual relations. Despite its disadvantages, however, withdrawal is a considerably better way to avoid pregnancy than using no contraception, and some couples apparently learn to use it fairly successfully.

FAMILY PLANNING PROGRAMS FOR MEN

Until recently, most family planning programs have neglected men. Since women bear children and currently have more contraceptive choices, policy-makers and program personnel have often assumed that family planning is primarily a woman's concern. When family planning services are combined with maternal and child health services, as in many Asian and African countries, this view is reinforced. Lack of information and services for men, more than lack of interest on their part, has probably kept


Kenya
WOULD YOU BE MORE CAREFUL, IF IT WAS YOU THAT GOT PREGNANT?
THINK ABOUT IT
Family Planning Association of Kenya
Zambia
MAYO MWALIBE
United States
Would you be more careful if it was you that got pregnant
Trinidad and Tobago
WOULD YOU BE MORE CAREFUL
IF IT COULD HAPPEN TO YOU

many men from taking a more active role in family planning.

Now, however, many contend that programs can serve family needs better by addressing men as well as women (4, 53, 85, 120, 133, 160, 161, 164, 371, 405). Thus, even though emphasis on services for women remains strong, a growing number of agencies and organizations are starting projects for men. Since few have been evaluated, little is yet known of their impact.

Developing Family Planning Services for Men

Programs for men use a variety of strategies. While it is not yet clear which are most effective, any program for men should be designed on the same principle that applies to delivering services to any other group: Design the services to suit the intended users. In practice, this means offering services that men find to be high-quality, comfortable to use, and accessible.

The first step is to gather information. Questions that need answers include:

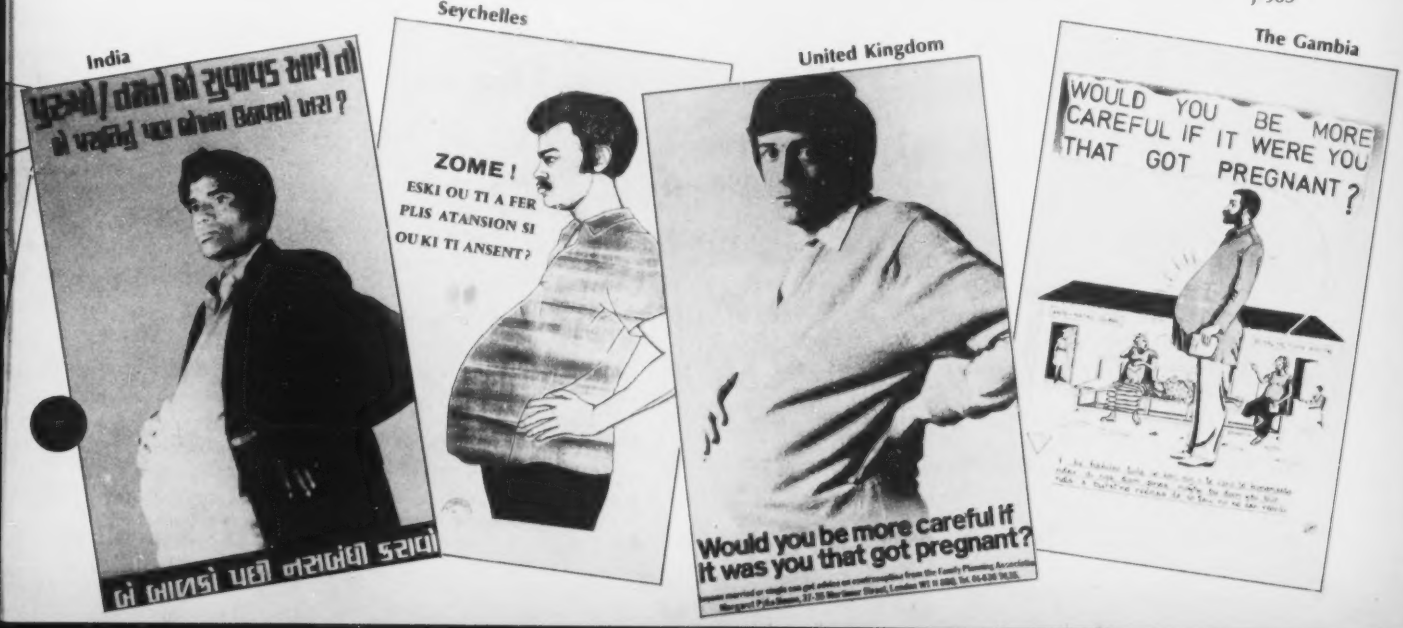
- What do men know about family planning? Do they know where to obtain services? What are their attitudes? What messages will appeal to men? What media will reach them? What information and services do men want? How do they want supplies and services delivered?
- What services are already available for men? Are they well-publicized? Are they affordable? Are they utilized? How could they be improved?

Much of this information can be obtained through small surveys and focus-group discussions. With this information, an organization can plan services that men will use.

Appropriate Services

Seeking to serve men better, various family planning organizations have applied the following principles:

- Services or products must be well-publicized. In São Paulo, Brazil, when Promação de Paternidade Responsável (PRO PATER) advertised vasectomy services in male-oriented magazines, the number of procedures performed each week increased by 60 percent, and many more men inquired about vasectomy (see p. J-910).
- Publicity should appeal to men's needs and desires, making men feel that their patronage is important. Messages should emphasize how men benefit from family planning and how using family planning can enhance their esteem. These have been the themes of multimedia campaigns by the Family Planning Association of Hong Kong, for example (see box, p. J-910). Messages often appeal to men's sense of responsibility to support their families. Topics of special interest to men, such as sports, can be tied to family planning. In Mexico, for example, a new contraceptive social marketing program launched its condom brand in 1986 with advertising tied to the Soccer World Cup matches taking place in Mexico City at the time (362) (see photo, p. J-908). Professional services and high-quality products, both of which are important to men, can also be emphasized in advertising campaigns.
- Training men to counsel other men provides a sympathetic source of information and advice. Family planning associations in Indonesia and Guatemala, for example, have used male counselors successfully (35, 157).
- Satisfied users can be enlisted to promote male-oriented methods and to counsel other men. This may be particularly important for vasectomy. US research shows that most men decide on vasectomy only after talking to other men who have had vasectomies (251, 252). In a number of programs field workers and clinic personnel who have had vasectomies have proved to be convincing proponents of the method and good counselors (25, 173, 251). A project in Sri Lanka has used vasectomy clients to promote vasectomy among other men (104).
- Medical, counseling, and administrative personnel should be trained to encourage men's participation, to understand what information, advice, and services men want, and to promote male-oriented family planning methods.
- When resources permit, separate family planning clinics for men can encourage more participation. PRO PATER in Brazil and the Asociación Pro-Bienestar de la Familia Colombiana (PROFAMILIA) in Colombia found that the number of men wanting vasectomy increased rapidly when high-quality, professional


India
Seychelles
ZOME !
ESKI OU TI A FER
PLIS ATANSION SI
OU KI TI ANSENT?
United Kingdom
Would you be more careful if it was you that got pregnant?
The Gambia
WOULD YOU BE MORE CAREFUL IF IT WERE YOU THAT GOT PREGNANT?

services were provided in clinics established specifically for men. Offering comprehensive reproductive health services, including diagnosis and treatment of infertility and sexually transmitted diseases, can make the clinics even more attractive to men (see p. J-909).

- Clinics that serve both men and women also can encourage more men to attend. Clinic surroundings should be comfortable and hospitable for men. Leaflets and posters should be designed to interest men as well as women. Setting aside some clinic hours each week just for men also may improve attendance.
- Like all other family planning services, services for men should respect individual privacy. In some settings, vending machines dispensing condoms may prove popular, as long as the machines can be kept fully supplied and in working order.

Accessible Services

Men must be able to obtain the services they want, when they want them.

- The more methods available, the more men can be served. If some services, such as vasectomy or instruction in Natural Family Planning, cannot be offered where other services are available, men should be referred to locations that are as convenient as possible.
- Services and supplies should be readily available—in the community, the workplace, or even brought to the home. Because condoms are easy to distribute, they can be offered in many locations, from pharmacies and grocery stores to bars, tea shops, and barber shops. Program efforts to expand condom distribution have ranged from nationwide social marketing programs (see pp. J-906–908) to informally encouraging local stores to stock condoms, as the African Medical and Research Foundation has done in Ghana (236).
- Services and supplies should be available at times convenient for men—usually outside working hours. In Bangkok, Chulalongkorn Hospital began special vasectomy clinics during the weekends in mid-1976. The number of clients rose from 58 per month in 1975 to 161 per month in the first half of 1978 (90).

Any measures taken to increase men's involvement in family planning will be more effective if (1) they are continuous, and (2) they are monitored, evaluated, and modified as needed.

DISTRIBUTING CONDOMS

Condoms are probably the best known and certainly the most often used male family planning method. Condoms are made available in a variety of ways:

- established commercial channels,
- contraceptive social marketing programs,
- family planning clinics, and
- community-based distribution projects.

In developed countries, which account for 60 percent of users, most condoms are sold commercially through pharmacies and other stores, mail order services, vending machines, and, in Japan, house-to-house sales. Men more often than women buy condoms, although not everywhere. In Japan, for example, door-to-door saleswomen sell condoms to women in their homes, and women can also obtain them easily in drugstores next to feminine napkins and tampons (349). Now in the US also, sales of condoms to women are increasing. Today perhaps as many as 40 percent of buyers are women (9). As a result new marketing campaigns are aiming at women as well as men (8, 9, 234, 402). Mentor Corporation recently introduced a new brand of condom in the US that is packaged to appeal specifically to women (7, 12, 234).

A major debate about mass media advertising of condoms is now underway in the US and Europe. Even though condoms are widely available, in many of these countries mass media policies have prevented any contraceptive advertising. Now concern over AIDS is forcing reappraisal of these restrictions since condoms protect against AIDS and other sexually transmitted diseases (see p. J-900). Both print and broadcast media are reconsidering their bans. Some radio and television stations and networks are running public service announcements and/or beginning to permit paid advertising. These announcements and advertising may make it easier for parents and schools to discuss sexual responsibility with children and encourage couples to discuss the issue more directly, too.

In most developing countries condoms can be bought through established commercial outlets. Availability differs both among and within regions, however. In Latin America condoms are widely available through pharmacies in a choice of brands, both domestic and imported. Condoms are made in Brazil and Mexico (454). In Africa large differences exist among countries, but in general condoms are not widely available, particularly outside urban areas. They also tend to be fairly expensive (317). In Asia commercial brands are sold, but in countries with large social marketing programs, such as India and Bangladesh, they have a small share of the market (186, 338). In only a few developing countries, such as India and Hong Kong, do commercial manufacturers advertise their condom brands through the mass media (39).

Contraceptive Social Marketing

Like commercial distributors, contraceptive social marketing projects sell condoms and other contraceptives through established retail outlets. The social marketing strategy, however, calls for extensive promotion and wide

Condom vending machines, like this one provided by the Mauritius Family Planning Association, offer buyers privacy and convenience, but they may be difficult to maintain. (JHU/PCS)

distribution of a subsidized product. Mass media advertising makes people aware of the products. A large network of retail outlets provides easy access for customers. And selling products donated by donor agencies or the government permits prices lower than commercial-brand prices. (See **Population Reports**, *Contraceptive Social Marketing: Lessons from Experience*, J-30, July-August 1985.)

Today social marketing projects are operating in nearly 20 countries. Colombia, India, Jamaica, and Sri Lanka were among the first to develop them. Projects have recently started in Ghana (363), Indonesia (364), Nigeria (191), Mexico (362), and Pakistan (367).

The volume of condoms sold through social marketing programs varies greatly. In India in 1984, the *Nirodh* social marketing program sold almost 200 million condoms (156). This amount would provide a full year of contraception for an estimated 1.5 percent of Indian married women of reproductive age. In Bangladesh the Social Marketing Project in 1985 distributed over 76 million condoms (307), enough to provide a year of contraception for an estimated 4 percent of married women of reproductive age. In Colombia over 22 million condoms were sold in the 5-year period 1981-85 (393). Between November 1985 and November 1986, its first year of operation, the Nigerian social marketing program sold over 8 million condoms (191). In 1986 the Indonesian program sold over 2 million condoms in its first nine months.

Social marketing combines easy access, privacy, and high-quality products with affordability. By charging distributors and retailers low prices, social marketing projects make condoms widely available at prices most people can afford. In Nigeria, for example, in 1986 the social marketing project sold four condoms for ₦ 0.50 (about US$.20). By comparison, the full commercial price for condoms was ₦ 3.00 to 4.50 (US$1.20 to $1.80) for three (191).

In contrast to commercial manufacturers, who have kept a low profile even in developed countries, social marketing projects have emphasized wide promotion and pioneered mass media advertising of contraceptives. In several developing countries people can now hear advertisements for condoms and other contraceptives along with other items on television and radio. Even in countries that have not allowed mass media advertising, the social marketing program has at least precipitated high-level discussion of the issue. Mass media advertising is promoting sales not only of social marketing brands but also of commercial brands. Even those who cannot pay for contraceptives at all may be motivated to seek out free services.

Social marketing advertising emphasizes that condoms are an excellent contraceptive method for married couples. This message counters the association that some people make between condoms and prostitution. As early as 1973, when the social marketing program started in Sri Lanka, it began with a mass media campaign to promote a positive image of condoms (443). Since then social marketing programs in other countries have promoted condoms similarly. Recent experience in Colombia shows that such campaigns can change attitudes. A 1984-85 radio and print campaign promoted generic condoms (without a brand name) to men. Before the campaign 74 percent of men thought that condoms were not for use with a permanent partner. The figure dropped to 54 percent after the campaign. Dissatisfaction with condoms and the feeling of

Social marketing programs often promote condoms as a good family planning method for married couples. This poster advertises *DuaLima* condoms, sold by the Indonesian social marketing program.

embarrassment when using condoms both decreased by about 20 percentage points. The number of men who reported buying condoms increased from 25 to 39 percent (300).

Social marketing advertising also stresses condom quality. In 1986 in Indonesia the government National Family Planning Coordinating Board (BKKBN) and three private companies launched a social marketing project with assistance from Social Marketing for Change (SOMARC) and support from the United States Agency for International Development (US AID) (364). The first product marketed is the *DuaLima* condom (see photo, this page). Research carried out before advertising started found that both men and women were concerned that condoms leaked. Also, men wanted condoms to be thin (377). Thus cinema ads have addressed both these issues, assuring people that *DuaLima* condoms are very thin yet leakproof (375).

Not only are some social marketing advertising campaigns improving the image of condoms, but they are also promoting the message of male responsibility in family planning. In 1982 the Bangladesh Social Marketing Project created a major radio ad campaign directed at men. Among the key phrases was "Be a wise man—do the right thing" (222). A later television campaign also used this phrase. In Colombia radio spots and print materials in the generic condom campaign carried the slogan "Loving responsibly is also a man's concern" (300). The percentage of men agreeing that men have a responsibility in family planning almost doubled, rising from 10 percent before to 19 percent after the campaign (366).

In Indonesia background research before the start of the social marketing program suggested that men, apart from deciding whether or not their wives could practice family planning, played very little part in choosing contraceptive methods (378). Therefore alerting men to their responsibility became a major objective of advertising (379). Promotional materials picture a husband in the foreground with his wife and child slightly behind him. In pre-tests of the materials, people felt that this arrangement, rather than the whole family in line, suggested a sense of male responsibility (376).

In Mexico a new brand of condom, *Protektor*, was recently launched. *Protektor* is the first product in a social marketing program involving the Ministry of Health and CONASUPO, a government-owned chain of grocery stores. The slogan "a man's contraceptive for responsible couples" conveys the idea of joint responsibility. All mass media messages have been designed to convey affection and commitment and to encourage both men and women to buy condoms (362, 365).

Program Distribution

Clinic-based and outreach family planning programs, both government and private, together distribute large quantities of condoms either free or at minimal cost.

In both developed and developing countries most condoms provided through clinics are given to women. Men are much more likely to buy condoms through retail outlets than go to clinics. Also, many clinics make little or no effort to encourage men to obtain condoms. In the US a survey of 35 family planning clinics found that all the clinics provided condoms, but only two-thirds of them offered condoms to men as well as to women (380). Some clinics now are making greater efforts to reach men. One of these is the Feebeck Hall Family Planning Program at Grady Memorial Hospital in the US city of Atlanta. In a pilot project in 1986 some female clients were offered free condoms to distribute to friends and relatives. Nearly three-fourths accepted them and distributed an average of 27 condoms each. As a result the project was expanded in 1987. Plans call for distributing 500,000 condoms through 15,000 to 20,000 people visiting the clinic. Up to 50,000 men will be served, many without ever visiting the clinic (142, 438).

Advertising addressed to men can tie its message to sports events. In Mexico the World Cup soccer matches were underway in 1986 when social marketing sales of *Protektor* condoms began. "A unique contraceptive just for champions," says the poster.

Like clinic programs, community-based distribution projects, which train local residents to distribute contraceptives in their communities, use primarily female workers and tend to serve women. Most community-based projects provide condoms but distribute many more oral contraceptives (349).

To encourage more condom use, community-based projects in various countries, including Ecuador, Ghana, India, Nigeria, and the Philippines, are now using trained male distributors to reach men directly (102, 105, 196, 236, 281, 404). In Lucknow, for example, the Family Planning Association of India has trained at least 85 young men to distribute condoms and encourage their use. In 1985 about 850 men obtained condoms for the first time, exceeding the project's goal by 71 percent (102). In Ghana the Planned Parenthood Association of Ghana community-based project has recruited as distributors men working in pharmacies, banks, lottery kiosks, police and military barracks, and elsewhere (196). A community-based project in Quito, Ecuador, run by the Centro Medico de Orientación y Planificación Familiar, is serving both men and women. To encourage greater interest among men, three men as well as several women have been trained as distributors. The National Police, Customs, and the State Railroad Administration are among the places they go to distribute contraceptives (105, 272).

PROVIDING VASECTOMY SERVICES

Efforts to involve men in family planning have focused more on vasectomy than any other contraceptive method, but these efforts have been limited to a few countries. While vasectomy has been actively encouraged in several Asian countries, in Latin America vasectomy services have only recently begun to spread. In Africa and the Near East they remain virtually nonexistent. Thus in much of the world lack of services remains a major obstacle to wider use of vasectomy. The First International Conference on Vasectomy in 1982 concluded that, to give all men who want no more children the opportunity for vasectomy, both high-quality, convenient services and wide-reaching educational programs are needed (25).

Asian Programs

Major government efforts to promote vasectomy have so far taken place only in certain Asian countries. National family planning programs in Bangladesh, China, India,

Nepal, South Korea, Sri Lanka, and Thailand all make vasectomy widely available through outlets that include hospitals, outpatient clinics, mobile teams, and sometimes private physicians (139, 280, 282, 392, 408). As a result, vasectomy is more prevalent in Asia than in any other part of the developing world. China and India alone account for four-fifths of the world's couples protected by vasectomy (see Table 2).

Since the mid-1970s, following the development of the simpler female sterilization techniques of minilaparotomy and laparoscopy, government programs in these and other countries have vigorously promoted voluntary female sterilization on an outpatient basis. Thus in the late 1970s and early 1980s the annual number of female sterilizations has almost always exceeded the number of male sterilizations in all seven of these countries (218, 332). Nevertheless, each year large numbers of men obtain vasectomies. In Bangladesh, India, Nepal, and Sri Lanka, the number of vasectomy clients has increased in the early 1980s. In Bangladesh, for example, the number of men having vasectomies grew from 26,000 in fiscal year 1980-81 to 69,000 in 1981-82 and to 89,000 in 1982-83 (332). In India a backlash occurred after the 1976 Emergency Campaign, in which over six million men were recruited for vasectomy, some reportedly under pressure. Vasectomies dropped to only 188,000 in fiscal year 1977-78. Since then, however, there has been a gradual increase each year. In 1982–83 almost 600,000 vasectomies were performed (332). In China vasectomy prevalence varies widely among provinces. The highest rate—31 percent—is in Sichuan. This may be due to the emphasis that the provincial family planning program gave to male sterilization in the late 1970s (309).

The national programs in Bangladesh, China, India, Nepal, South Korea, and Sri Lanka at various times have provided compensation to men and women who choose sterilization. This has usually taken the form of small cash payments to cover travel costs or lost wages, food while away from home, or material goods such as clean clothes (332).

Private family planning organizations in several Asian countries offer vasectomy services to supplement the government programs. The Bangladesh Association for Voluntary Sterilization, for example, has offered male and female voluntary sterilization services since 1975. Between 1981 and 1985 over 150,000 vasectomies were performed (29). In 1980, with help from the Association for Voluntary Surgical Contraception, the Bangladesh organization set up a separate clinic for men (25). By the end of 1986 this clinic had performed over 10,000 procedures, averaging over 1,700 a year (429).

In Thailand Community-Based Family Planning Services (CBFPS), now a part of the Population and Development Association, has been promoting family planning since 1974, using a network of trained local volunteers in thousands of villages (154, 265). In 1980 CBFPS initiated a voluntary sterilization project to provide services, particularly vasectomy, in areas not served by the government program. Services can be obtained through urban clinics and through mobile teams that travel throughout rural areas in specially equipped vehicles. Services are publicized by village volunteers and in the mass media. In the first three years the project performed more than 19,000 vasectomies (265). "Vasectomy festivals," which offer services on public holidays, have attracted many clients—partly because men are not working on holidays and also because the services are offered as part of holiday activities. In 1983 at the King's Birthday Festival, CBFPS doctors performed 1,190 vasectomies in one day at a single site. Because of the popularity of the festivals, in 1984 the government program organized similar "mini-festivals" in many provinces (266).

Latin American Programs

Until recently, few men in Latin America had vasectomies (see p. J-897 and Tables 1 and 2). A major reason has been lack of information and services. Government programs either do not provide vasectomy or have very limited services. Most men who want the procedure must find a private physician to perform it. In some countries, however, small private programs are now offering vasectomy. Their popularity is proving that a demand exists for good-quality, convenient services. In Guatemala the Asociación Pro-Bienestar de la Familia (APROFAM) started one of the first vasectomy programs in Latin America in 1973. It publicized its vasectomy services through educational materials, the mass media, and talks to groups of men. In 1977 APROFAM expanded its services to some national hospitals and various private centers in addition to APROFAM clinics (335). In 1980 just over 1,000 men had vasectomies through the program. By 1984 the number had risen to over 1,600, but it declined slightly in 1985 to just under 1,500 (166).

Two pioneering programs in Latin America are demonstrating that separate clinics for men encourage male involvement in family planning, and particularly vasectomy. They also are proving that men are willing to pay for high-quality, reasonably priced vasectomy services. Promação da Paternidade Responsável (PRO PATER) is a private

Camisa de Vênus
Coito Interrompido
Pílula
DIU
Abstinência...
...ATÉ QUANDO?
A alternativa inteligente: simples e segura
e a vasectomia, uma incisão superficial de 1 cm
praticada no homem sem necessidade de internação
hospitalar. Ela elimina definitivamente o risco da
gravidez não planejada preservando, ao mesmo tempo
toda a potência e toda a virilidade do homem
Se você já tem os filhos que desejava ter
opte pela vasectomia. Não haverá maior prova de
amor que você possa oferecer à mulher de sua vida
PRO PATER

"Condom, withdrawal, pill, IUD, abstinence . . . how much longer?" asks this ad, one of four placed by PRO PATER in male-oriented magazines in São Paulo, Brazil, to promote vasectomy. During the campaign the number of vasectomies done at the PRO PATER clinic rose by 60 percent, and the number of inquiries doubled.

agency in Brazil that offers men both medical and educational reproductive health services. PRO PATER opened its first clinic in 1981 in São Paulo. In addition to vasectomy, the clinic offers other reproductive health services for men including treatment for infertility and sexual disorders (78, 79). Between February 1981 and October 1983 over 3,000 men had vasectomies at the clinic (78). By 1986 the figure had risen to over 10,000 (77).

Until 1985 PRO PATER depended primarily on word of mouth to attract clients. Toward the end of 1985, however, PRO PATER tested a magazine advertising campaign. In the seven weeks of the campaign an average of 98 vasectomies were performed per week, compared with 61 per week in the 7-week period just before the campaign—a 60 percent increase. A few months after the campaign, the number of vasectomy clients fell again but still remained over 40 percent higher than the precampaign level. The campaign doubled the number of telephone inquiries (77, 316). PRO PATER has now opened three more clinics for men, in São Paulo State, Paraná State, and Rio de Janeiro. PRO PATER also is helping ongoing family planning programs in two other cities in São Paulo State to integrate vasectomy into their clinical services (78, 287).

A similar experiment with clinics for men has begun in Colombia. The Asociación Pro-Bienestar de la Familia Colombiana (PROFAMILIA) has long provided vasectomy services at its 38 family planning clinics, but most of these clinics perform very few procedures. In November 1985 PROFAMILIA opened a clinic for men in Bogotá and another in Medellin and has been using radio spots to promote them. In addition to vasectomy, the clinics provide urology examinations and treatment for infertility, sexual dysfunction, and sexually transmitted diseases. They also provide routine laboratory tests. The Bogotá clinic is already performing about 100 vasectomies a month, and the Medellin clinic, almost 50—about double and triple, respectively, the numbers performed previously at the PROFAMILIA clinics in those cities. At the Bogotá clinic, service fees cover three-quarters of the operating costs. A third men's clinic is planned for Cali (50, 51, 385, 386).

Hong Kong Campaigns Attract Men to Family Planning

The Family Planning Association of Hong Kong (FPAHK) has mounted the longest running, most thorough efforts to reach and serve men. In 1960 the Association opened two clinics for men. In 1973 a vasectomy clinic opened. Since 1977 the Association also has organized a series of multimedia publicity campaigns. The most recent of these was launched in October 1986 to emphasize the benefits of male participation in family planning. It features a cartoon character, "Mr. Able," created especially for the campaign. A blimp and a band performance highlighted the kick-off ceremony, and a "Mr. Able" campaign bus toured Hong Kong (see photo below). The campaign also is using television and radio spots, as well as posters, pamphlets, and specially packaged condoms, to spread the message, "Be a Mr. Able in family planning." A series of contests is planned, including cooking, snooker, and script-writing. A "Mr. Able" club will be set up (101, 202, 203).

The "Mr. Able" campaign is the latest in a long line of promotional efforts aimed at men. The first, in 1977, was the "Mr. Family Planning" campaign, which focused on well-known personalities. A 1979 campaign featured a soccer star who had undergone vasectomy. A 1982 campaign used Superman as the theme. It was replaced in 1983 by the "Kung Fu Master" campaign, with a well-known veteran kung fu master and actor as its central figure (200).

All these campaigns have used mass media extensively. In the "Mr. Family Planning" campaign, men representing different professions were presented as "model men" in television spots. Their message: "While we depend on our wives to give us children, we can depend upon ourselves not to have any." The "Kung Fu Master" spots stressed sharing responsibility for family planning between husband and wife. Many popular television and radio shows interviewed the celebrities and FPAHK staff and ran features about the campaigns. Newspapers and magazines also covered the campaigns extensively. The "Kung Fu Master" campaign generated well over 100 articles. Posters, pamphlets, and souvenir gift and salable items such as T-shirts also were produced for the campaigns. Special activities—a mobile exhibition, competitions such as a family photo contest, and soccer games—were organized.

As a result of the publicity and services offered, the percentage of new clients—both men and women—obtaining condoms at FPAHK clinics increased from 10 percent in 1970 to 30 percent in 1982 (200). Since then it has dropped back, however, and during the first six months of 1986 reached just 21 percent (203). The number of vasectomy clients has fluctuated. It climbed to almost 600 in 1979, the year of the vasectomy campaign, but then dropped. In 1984 the number increased again to 632 but since has declined somewhat (200, 203). This experience demonstrates the need for continuous promotion and suggests that publicity for specific methods attracts more clients.

In Hong Kong the new "Mr. Able" campaign encourages men to take the lead in family planning. Police cadets hand out flyers and free condom samples by the "Mr. Able" bus. (Courtesy of Peggy Lam)

Developed Countries

Among developed countries the largest numbers of vasectomies are performed in the US and Great Britain. In the US most men obtain vasectomies through private physicians (184). Of the estimated 419,000 procedures in 1984, for example, private physicians accounted for 90 percent. Freestanding outpatient surgery centers, military facilities, and family planning clinics accounted for the other 10 percent (24). While vasectomy is widely available in the US, cost may prevent many low-income men from obtaining the service. In a 1983 survey half of the physicians who performed vasectomy reported that they did not accept Medicaid (government health insurance) reimbursement, and only 12 percent said that they would reduce fees for patients who could not afford them (277). In Britain vasectomy is available through government health services. It is estimated that well over half of procedures are performed by private physicians or in private clinics, however, because there are often long waiting lists for government services (132).

PROMOTING MALE RESPONSIBILITY

A small but growing number of education and information programs are encouraging men to take greater responsibility for family planning. Rather than promoting specific contraceptive methods, most focus on responsible parenthood and encourage men either to use contraceptives themselves or to support their partners in using a method. Both interpersonal communication and mass media strategies are used. Some of these projects are focusing particularly on young men.

Educational Activities

Educational programs for men take various forms. In a few countries government agencies have taken the lead. In Jamaica, for example, in 1982 the National Family Planning Board launched its Male Responsibility Programme. Lectures and panel discussions for men are a major part of the program. One-day motivational seminars also are held. By 1985, 5,000 men had attended lectures and other activities; 850 had attended the one-day motivational seminars; and 120 volunteers had been trained as educators to conduct small seminars in their communities and workplaces. The program also has produced booklets for participants and posters for the workplace and elsewhere. It also uses the mass media to promote male responsibility. In 1985 the program launched a 6-month mass media campaign aimed specifically at young men. The campaign slogan—"Before you be a father, be a man"—complemented the slogan of the young women's campaign—"Before you be a mother, be a woman." It used radio, newspaper advertising, and automobile bumper stickers to urge men to behave responsibly toward women and to take responsibility for their children (170, 171, 172).

In Mauritania the Ministry of Health and Social Affairs has organized a school for fathers as part of a family health project. The school started in 1981. Its purpose is to make men sensitive to the health problems of women and to family planning. Fathers meet once a month to discuss a variety of problems affecting children and women. In 1984 the project started a weekly school for husbands to provide information on family health to young men who do not yet have children (368).

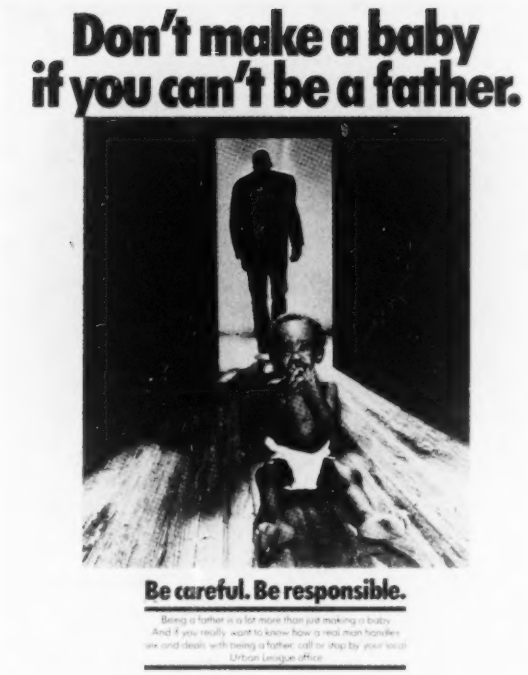
A 1983-84 operations research project in Dominica, carried out by the Ministry of Health and Tulane University, showed that men were willing to attend education sessions on family planning and related issues. A trained male promoter conducted a series of four sessions in one urban and four rural communities. Between lectures the promoter visited the communities to talk with men and distribute condoms. A man from each community helped recruit participants for the sessions. A follow-up survey found that 19 percent of men interviewed in the five communities had attended at least one lecture, and half had heard of the male promoter. Since no survey was carried out before the education sessions, however, it is not clear exactly what impact the sessions had on knowledge and use of contraceptives (205).

Most educational activities for men have been organized by private agencies, often family planning associations. In 1979, for example, a chapter of the Family Planning Organization of the Philippines began a class for fathers in family life education (281). In 1986 the Mauritius Family Planning Association conducted two one-day seminars and six half-day talks for men to inform them about family planning and to encourage them to use male methods (229). Also, a number of family planning associations are carrying out educational activities that reach men where they work (see pp. J-913–914).

Educational outreach programs for young people have been organized in several countries. Many of these programs try to reach young men especially (see **Population Reports**, *Youth in the 1980s: Social and Health Concerns*, M-9, November-December 1985). Several outreach projects for young men are operating in the US. In Chicago the Adolescent Family Center of the Rush-Presbyterian St. Luke's Medical Center started a male adolescents' program in December 1984 to complement a program that serves primarily young women. The men's program has three goals: to teach young men the consequences of teenage pregnancy, to teach them how to prevent pregnancy, and to help those who have already become fathers to meet their new responsibilities. The curriculum is approved by the city Board of Education, and program staff conduct courses in schools. They also give talks in youth agencies and churches and in jails to young men about to be released. Between September 1985 and September 1986 the program reached 1,500 young men (58, 286, 334).

The Young Men's Clinic at Columbia Presbyterian Hospital in New York combines clinical services with an outreach program. The staff work closely with neighborhood recreation centers, churches, youth agencies, and even the local police station to encourage young men's visits. To generate interest, the staff also use the clinic videotape equipment to film young men's activities, such as basketball. After the filming they talk with the players and suggest that they come to the clinic to see the video. At the clinic they can receive information and health care and discuss any problems that they may have (58).

Outreach projects in Latin America also address the special needs of young people, both men and women. For example, the Centro de Orientación Para Adolescentes (CORA) in Mexico is a multiservice program that offers recreational activities, counseling, job training, sex educa-


Don't make a baby if you can't be a father.
Be careful. Be responsible.
Being a father is a lot more than just making a baby.
And if you really want to know how a real man handles sex and deals with being a father, call or stop by your local Urban League office.

The National Urban League in the US is mounting a major campaign to tell young black men about male responsibility. The League, a nonprofit group seeking equal opportunity for all minority groups, sponsors a variety of activities for young people.

tion, and medical services to young people. Peer counselors help young men develop an attitude of responsibility in relationships with women. These peer counselors contact other young men in sports centers, schools, playgrounds, and other places where young men gather. The program operates through two centers in Mexico City and one in Tamaulipas (242).

In an ongoing operations research project in Monterrey, Mexico, Prosuperación Familiar Neolonesa found after nine months that trained young volunteer outreach workers, supervised by a community counselor, encouraged more young men to attend sex education courses than multiservice Integrated Youth Centers. Furthermore, they cost less than one-third as much. Similar programs are now being set up in other communities along Mexico's northern border (336).

In Asia also family planning associations are organizing outreach activities for young people. The Family Planning Association of Hong Kong, for example, contacts young people at marriage registries. It also provides premarital checkups. In 1986 it opened a health care center for young people (201). In the Philippines, to ensure that young people know about responsible parenthood before they marry, a regulation requires that each couple attend a special session before they can obtain a marriage license (448).

Telephone hotlines are another way of reaching young people in urban areas with information and advice. They are convenient, and they offer anonymity. Hotlines have been set up in several countries including Austria, Hong Kong, Ireland, Sierra Leone, Thailand, and the US (436, 439, 440, 446, 447).

The World Scout Bureau and the International Planned Parenthood Federation are working together to introduce family life education to national scout groups. Programs are now underway in Bangladesh, Egypt, India, Indonesia, Kenya, Nepal, and Thailand. Regional conferences for scout leaders have been organized in Benin, The Gambia, Kenya, Nepal, Thailand, and Zimbabwe (449).

Using Mass Media

During the 1980s the mass media—radio, television, and print—have become the most important tools for spreading the family planning message. Several programs are now promoting male responsibility through the mass media. The most extensive program so far has been organized by the Family Planning Association of Hong Kong (see box, p. J-910). Other efforts have been on a smaller scale. The Caribbean Family Planning Affiliation (CFPA), for example, developed posters and radio spots that seven Caribbean islands used in male responsibility campaigns in 1985 (see photo, p. J-914). CFPA also produced a video entitled "Man to Man" (208). The Planned Parenthood Federation of Nigeria uses radio and television programs, newspaper ads and articles, posters, and booklets to spread the message of male responsibility in a communication project in Plateau state (195) (see photo, p. J-892). In Zimbabwe the National Family Planning Council has set up booths encouraging male responsibility at an international trade fair and an agricultural exhibition. Interviews with people at the exhibitions and with council staff have been used later in radio programs. A radio drama is planned that will address the issue of male responsibility in family planning (180).

Developed countries have lagged behind many developing countries in using mass media to promote family planning, including male responsibility. This reluctance may be diminishing, however. In 1984 the British Family Planning Association launched its "Men Too" campaign to increase men's awareness of their responsibility. A press conference presented messages of support from 21 famous men. Special television spots were aired free of charge by several stations, and in each region an actor who was familiar to the region delivered the script. Posters for family planning clinics and four new publications—two motivational leaflets, a comic-strip leaflet, and a guide for health educators—were produced, as well as a video, "Danny's Big Night." The video story, set in a multiracial inner-city area, explores problems facing adolescents and male attitudes in particular. Its purpose is to start discussions in youth clubs, schools, colleges, and other places where it is shown. The campaign ended in March 1985 with a national conference. Throughout, the campaign received broad coverage in newspapers and on television and radio (406, 407). In 1984, the year that the campaign started, 13 percent more men attended family planning clinics than in the previous year. Statistics for 1985 are not yet available (11). In early 1986 the Family Planning Association in Queensland, Australia, launched a "Men Too" campaign closely modeled on the British campaign (167).

While most US media depict aggressive male sexual tactics in entertainment programming, a few organizations are now using the media positively, to encourage men to be sexually responsible. In 1985 the National Urban League, which sponsors a wide range of social, educational, and vocational programs for young blacks and other minority groups, launched a male responsibility campaign with the

theme "Don't make a baby if you can't be a father." Using posters and newspaper and radio ads, the campaign reached hundreds of thousands of young black men (260). Many local affiliates also organized special workshops and debates (261). In a new 2-year, expanded program, the materials will be distributed more widely, and affiliates and other community organizations will receive technical assistance to develop programs involving young men in pregnancy prevention and responsible parenting (259, 260, 262). Several National Urban League affiliates already run special educational programs for young men on family planning counseling, parenting, and family relations (259).

Print Materials

Many other programs in both developing and developed countries have produced posters, leaflets, and booklets especially for men. While some concentrate on information about specific family planning methods—condoms and vasectomy—others present a more general message about family planning and sexual responsibility. One such booklet is "Thabo's Home Coming," developed in Lesotho by the Family Planning Association and the Lesotho Distance Teaching Centre. The booklet is aimed at married men. The story of a returning migrant worker does not directly preach the benefits of family planning but instead helps readers think about family planning (210, 211). In Sweden the National Board of Health and Welfare is preparing a magazine called "Just for Boys," which will provide information on growing up, love, and sex. It will be distributed in youth centers, schools, sports clubs, military service units, and employment training centers. It is intended to help male youth leaders, trainers, and teachers discuss these issues with young men (34).

REACHING MEN IN THE WORKPLACE

In developing countries the vast majority of workers in the organized sector of the economy are men. Thus the workplace is an excellent place to reach men with family planning information and services. In factories, industrial plants, and cooperatives, as well as on plantations, a variety of family planning activities have been carried out, including lectures and group meetings, formation of men's clubs, and provision of contraceptives.

Private-Sector Programs

There have been employment-based programs around the world for many years. Some of the earliest efforts were projects in steel companies in India and Japan dating back to the early 1950s (434, 452). The US Agency for International Development (US AID), along with other donor agencies, has supported many employment-based programs over the years. In 1985 the Agency increased its emphasis on such programs by funding the 5-year Enterprise Program, which John Snow Inc. is implementing. A major goal of the program is to improve or expand family planning services provided by private-sector employers. The program also assists private medical service providers and nonprofit private organizations. Three projects with manufacturers are already underway: with Lever Brothers in Nigeria, P.T. Gamay Djaja Corporation in Indonesia, and Industries Unidas-Pasteje in Mexico. All projects offer both education and services. Also, with support from the Enterprise Program, the Population and Development Association in Thailand is expanding its factory-based family planning services, which rely on trained workers who serve as volunteer motivators and distributors (175, 176, 269).

A precursor of the Enterprise Program is the ongoing Family Planning Private Sector Programme, which started in 1984 in Kenya. This 4-year program is helping private companies and nongovernmental institutions add family planning services to existing health services for employees and their families. The program is coordinated by the National Council for Population and Development and implemented by John Snow Inc., with support from US AID. Although the program emphasizes services, health workers also conduct educational sessions in the workplace. In addition, individual companies are encouraged to form their own community-based committees, with management, union, and worker representation, to plan information and education programs (106, 193).

The Family Planning Private Sector Programme in Kenya supports 30 projects in a variety of enterprises. These include paper mills, cashew nut and tea producers, and sugar companies, all of which employ mainly men. Each project has a potential clientele of 1,400 to 500,000 people, and the entire program is available to over one million people. The program aims to recruit a total of at least 30,000 new family planning clients (106, 193).

Family planning associations and other private agencies in several countries also have started projects among male workers. Nine chapters of the Family Planning Association of India, for example, have programs in factories that together employ about 300,000 men. In 1985 these programs carried on a broad range of activities such as general meetings, group discussions, counseling, and cultural programs. During the year over 70 condom distribution depots were established in factories. Over 3,000 educational programs were held. Almost 6,000 men or their wives chose a contraceptive method, and 560 men had vasectomies. Workers also were encouraged to form Acceptor Clubs (103).

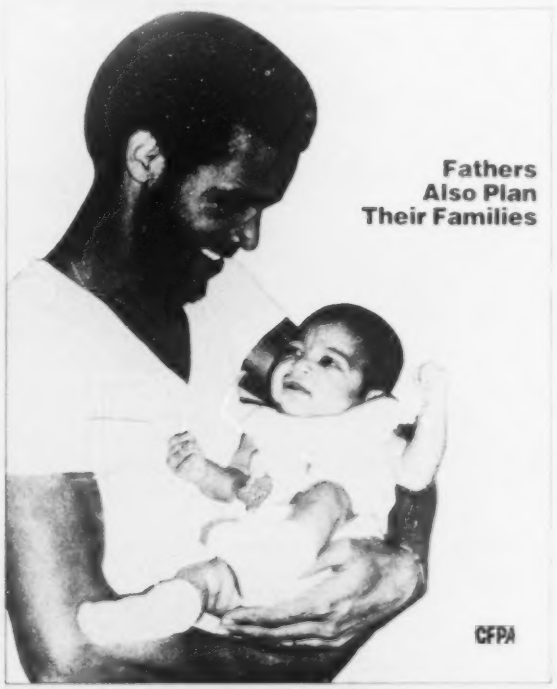
Since 1972 the Family Planning Association of Bangladesh (FPAB) has been promoting family planning among mill workers. The project involves educational campaigns, group meetings with field workers, and home visits. Also, field workers accompany men who want vasectomies to Association clinics. An Action Committee made up of representatives of management, the mill's Medical Department, and labor leaders provides support for the field workers, reviews project performance, and suggests ways to attract more clients (322). In Comilla the Family Planning Association of Bangladesh started a project in 1980 involving the 3,500-member Rickshaw Labor Union. One hundred rickshaw pullers were trained as functional literacy teachers and family planning motivators. They in turn organize functional literacy centers, group meetings, and various community events for other rickshaw pullers. The group approach has helped individuals to accept the idea of family planning: they see that other union members approve. The trained rickshaw pullers also keep contraceptive supplies for their fellow workers (322).

The Planned Parenthood Association of Ghana carried out educational programs for industrial and commercial workers between 1980 and 1982. In 1981 the Association also

collaborated with the National Vocational Training Institute to integrate family life education into the training syllabus for 1,000 young men from messenger and clerical grades in the public service (196). In 1980 the Association also began its Daddies Clubs. Today there are four clubs in different areas of Ghana. The club at Pretsea Oil Palm Plantation, in the western region, has been particularly successful. Although initially only 25 workers joined, membership rose sharply after the Association was able to treat two infertility cases successfully. By 1985 the club had about 200 active members, ranging in age from 18 to 40. The group meets weekly for film shows, debates, lectures, group discussions, and indoor games. Some of the club members are community-based distributors of contraceptives (196, 421).

The Planned Parenthood Federation of Nigeria has trained 44 male volunteers as motivators. They provide family planning information and distribute condoms and spermicides in 20 factories in urban areas (195). The family planning associations in Egypt, Hong Kong, Lesotho, and Tunisia also have organized projects in the workplace (61, 200, 320).

Family planning associations also are working with the military and police and training family planning instructors for them. In 1973 the Planned Parenthood Federation of Korea began a program with the Homeland Reserve Forces, whose members now number about 3.5 million. Today family planning education is part of the reservists' annual training course and incorporated into training for the regular military as well. The Federation also holds a workshop every year to train medical officers as population educators. In 1982 over 1.7 million reserve troops attended a total of 8,000 lectures, and over 23,600 had vasectomies. As a result of this and other programs that focus on men, the total number of men using male-oriented methods in South Korea increased from 53,100 in 1981 to 123,000 in 1984 (281, 283). In 1978 the Planned Parenthood Association of Thailand began working with the Royal Thai Army and the metropolitan police, organizing lectures and training volunteer motivators (295). The Association also helped to integrate family planning education into the training curriculum for police cadets and provided in-depth training to interested instructors (281). In 1984 the Family Planning Association of Malaysia began educational activities in all-male organizations such as the army, police, farmers' cooperatives, and trade unions (281). The family planning associations in Bangladesh and Turkey also have organized activities for the armed forces (99, 235).



The mass media are bringing the male responsibility message to large numbers of men. Several Caribbean countries have run male responsibility campaigns using radio spots, a video, and posters produced by the Caribbean Family Planning Affiliation.

ILO Population Education Program

The Population Education Programme of the International Labour Office (ILO) has been a major promoter of employment-based educational programs for over a decade. Today it supports or assists almost 70 projects in over 30 developing countries as diverse as Bangladesh, Jamaica, and Sudan. Many of the projects are carried out directly with companies. They focus on the welfare of the worker's family and on family economics. At the worksite they teach workers about the relationship between family resources and family size. They encourage family planning, particularly for child-spacing, so that the workers can adequately care for the children they have. Most of these projects do not offer family planning services (158, 326, 327). Since the success of these projects depends on the support and involvement of top trade union leaders and on the cooperation of management, they usually have joint labor-management committees to coordinate activities.

ILO technical staff help trade unions and employer organizations to start programs for workers. Employer organizations in Bangladesh, Hong Kong, India, the Philippines, and Sri Lanka have established such programs with ILO help. In each country an education unit now operates in the office of the national employer federation. The office encourages federation members to introduce family welfare education activities in the plant or factory (326).

The ILO program also has introduced population education into the curricula of vocational training courses in several countries including Bangladesh, Jamaica, Jordan, and Zambia. Thus, as well as learning new job skills, the students learn about family welfare issues (326).

These programs for men suggest that an important start has been made in involving men more actively in family planning. A greater effort is still needed, however. More surveys of men and more evaluation of existing projects would provide valuable information to guide future programs.

Since many family planning programs have neglected men for so long, there is an urgent need for a wide range of projects to reach men in the workplace, in the community, and in health care centers. In the long term, however, the most effective family planning programs will be those that serve the needs of both women and men, not only individually, but also together, as couples, recognizing that family planning is a joint responsibility.

BIBLIOGRAPHY

Asterisk (*) designates an article that was of particular value in the preparation of this issue of **Population Reports.**

1. ANONYMOUS. A message for men. [Editorial] People 10(4): 2. 1983.
2. ANONYMOUS. AIDS epidemic sparks campaign to encourage condom use. Contraceptive Technology Update 6(12): 161–163. December 1985.
3. ANONYMOUS. Company improves condoms by adding spermicide. Contraceptive Technology Update 3(8): 103–104. August 1982.
4. ANONYMOUS. Decision-makers on family planning: the Bohol experience. Population News Service 2(7): 1–4. 1977.
5. ANONYMOUS. Ghana: half the fertility reduction in a rural area is due to acceptance by men of family planning. International Family Planning Perspectives 5(1): 31–32. March 1979.
6. ANONYMOUS. Indian outlook on family planning. Current Opinion 4(11): 118–121. November 1976.
7. ANONYMOUS. More women shopping for birth control items. Drug Store News, July 7, 1986. p. 13, 15.
8. ANONYMOUS. Rely on condoms to protect your sexual health. Contraceptive Technology Update 8(1): S1–S4. January 1987.
9. ANONYMOUS. Selling condoms to women. Working Woman, October 1985. p. 68, 72, 74.
10. ANONYMOUS. Tests confirm condoms block AIDS virus. Medical World News 27(2): 31–32. January 27, 1986.
11. ANONYMOUS. The profile of a campaign: "men too." Entre Nous 8: 11–13. July 1986.
12. ANONYMOUS. Woman buyers targeted. Asbury Park Press, June 26, 1986. p.
13. ABDULAH, N. Attitude to birth control. In: Fertility and family planning among men in Trinidad and Tobago 1973. Report on family planning survey—males. St. Augustine, Trinidad, University of the West Indies, Institute of Social and Economic Research, [1975]. p. 59–75.
14. ABDULAH, N. Ideal number of children. In: Fertility and family planning among men in Trinidad and Tobago 1973. Report on the family planning survey—males. St. Augustine, Trinidad, University of the West Indies, Institute of Social and Economic Research, [1975]. p. 26–39.
15. ADEBAYO, A. and ADAMCHAK, D.J. Fertility attitudes of male Nigerian students in the U.S. Presented at the Annual Meeting of the Population Association of America, Boston, March 27–30, 1985. 31 p.
*16. AHMED, G. and WILLIAMSON, N.E. The case of the missing condoms: results of the 1983 Bangladesh condom user survey. Presented at the American Public Health Association Meeting, Anaheim, California, November 11–15, 1984. 30 p.
17. AKHTAR, B.F., WEINBAUER, G.F., and NIESCHLAG, E. Acute and chronic effects of a gonadotrophin-releasing hormone antagonist on pituitary and testicular function in monkeys. Journal of Endocrinology 104(3): 345–354. March 1985.
18. ALEXANDER, N.J. (Eastern Virginia Medical School) [Open-ended vasectomy and sperm antibody formation] Personal communication, January 29, 1987.
19. ALEXANDER, N.J. Contraceptive potential of antisperm antibodies. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 429–434.
20. ALEXANDER, N.J. Development of a contraceptive vaccine. [Abstract] Advances in Contraception 2(3): 273–274. September 1986.
*21. ALIAGA, A. and NOVAK, J.A. Contraceptive knowledge, use, and attitudes among Dominican men: results from the 1984 Male Contraceptive Prevalence Survey. Presented at the meeting of the American Public Health Association, Washington, D.C., November 19, 1985. 23 p.
22. AMELAR, R.D. and DUBIN, L. Vasectomy reversal. Journal of Urology 121(5): 547–550. May 1979.
23. ARONSON, J. (Schmid Laboratories) [Export of spermicidal condoms to developing countries] Personal communication, December 10, 1986.
24. ASSOCIATION FOR VOLUNTARY SURGICAL CONTRACEPTION. Study includes first comprehensive look at outpatient services. AVSC News 24(4): 2–6. October–November 1986.
*25. ATKINS, B.S. and JEZOWSKI, T.W. Report on the 1st International Conference on Vasectomy. Studies in Family Planning 24(3): 89–96. March 1983.
26. ATKINSON, L.E., LINCOLN, R., and FORREST, J.D. The next contraceptive revolution. International Family Planning Perspectives 11(4): 100–107. December 1985.
*27. BACHRACH, C.A. and MOSHER, W.D. Use of contraception in the United States, 1982. NCHS Advancedata, No. 102, December 4, 1984. 8 p.
28. BAJAJ, J.S. and MADAN, R. New approaches to male fertility regulation: LHRH analogs, steroidal contraception, and inhibin. In: Benagiano, G. and Diczfalusy, E., eds. Endocrine mechanisms in fertility regulation. New York, Raven, 1983. (Comprehensive Endocrinology, No. 3) p. 203–231.
29. BANGLADESH ASSOCIATION FOR VOLUNTARY STERILIZATION (BAVS). Year-wise BAVS vs. national performance. [Table] Dhaka, Bangladesh, BAVS, 1986. 1 p.
30. BARBADOS FAMILY PLANNING ASSOCIATION, and WESTINGHOUSE HEALTH SYSTEMS (WHS). A comparative study of contraceptive prevalence in Antigua, Dominica, St. Lucia and St. Vincent. Columbia, Maryland, WHS, September 1983. (Contraceptive Prevalence Surveys) 83 p.
31. BARLOW, D. The condom and gonorrhoea. Lancet 2(8042): 811–812. October 15, 1977.
32. BERENT, J. Family planning in Europe and USA in the 1970s. Voorburg, Netherlands, International Statistical Institute, October 1982. (World Fertility Survey Comparative Studies No. 20) 33 p.
33. BERG, P. Trials to begin on male contraceptive. Washington Post, November 4, 1986. p. 5.
34. BERGMAN, L. Just for boys—a social approach to sex education and family planning. Planned Parenthood in Europe Regional Information Bulletin 15(1): 15–25. Spring 1986.
35. BERTRAND, J.T., SANTISO, R., LINDER, S.H., and PINEDA, M.A. The evaluation of a communication program to increase adoption of vasectomy in Guatemala. New Orleans, Louisiana, Tulane University School of Public Health and Tropical Medicine, 1985. 32 p. (Mimeo)
36. BHASIN, S., FIELDER, T.J., and SWERDLOFF, R.S. Dissociating antifertility effects of a GnRH antagonist from its adverse effects on mating behavior: the critical importance of testosterone dose. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 329–335.
37. BILLINGS, E. and WESTMORE, A. The Billings method: controlling fertility without drugs or devices. New York, Random House, 1980. 254 p.
38. BILLINGS, J.J. The ovulation method. Melbourne, Australia, Advocate Press, 1970. 96 p.
39. BLAIRMAN, D.A. (LRC International Division, London International Group PLC) [Commercial distribution and advertising of condoms in Asia; marketing of spermicidal condoms] Personal communication, February 17, 1987.
40. BLEEK, W. The value of children to parents in Kwahu, Ghana. In: Oppong, C., Adaba, G., Bekombo-Priso, M., and Mogey, J., eds. Marriage, fertility and parenthood in West Africa. Canberra, Australia, Australian National University, 1978. (Changing African Family Project Monograph Series, No. 4, Pt. 1) p. 307–323.
41. BOGUE, D.J. Some tentative recommendations for a "sociologically correct" family planning communication and motivation program in India. In: Kiser, C.V., ed. Research in family planning. Princeton, New Jersey, Princeton University Press, 1962. p. 503–538.
42. BOMSEL-HELMREICH, O. The aging of gametes, heteroploidy, and embryonic death. International Journal of Gynaecology and Obstetrics 14(1): 98–104. 1976.
43. BORIA-BERNA, M.C. Husband's role in birth control acceptance. Medical Aspects of Human Sexuality 6: 70–74. May 1972.
44. BOUE, J., BOUE, A., and LAZAR, P. The epidemiology of human spontaneous abortions with chromosomal anomalies. In: Blandau, R.J., ed. Aging gametes: their biology and pathology. (Proceedings of the International Symposium on Aging Gametes, Seattle, Washington, June 13–16, 1973) Basel, S. Karger, 1975. p. 330–348.
45. BRACKEN, M.B. The Jamaican family planning programme: clinic services and social support as factors in dropping out. International Journal of Health Education 20(2): 126–135. 1977.
46. BREMNER, W. (University of Washington) [WHO clinical trial to test contraceptive efficacy of testosterone] Personal communication, October 15, 1986.
47. BULATAO, R.A. Content and process in fertility decisions: a psychosocial perspective. In: United Nations. International Conference on Population, 1984. Fertility and family. Proceedings of the Expert Group on Fertility and Family, New Delhi, January 5–11, 1983. New York, United Nations, 1984. (ST/ESA/SER.A/88) p. 159–199.
48. BURGER, J.M. and INDERBITZEN, H.M. Predicting contraceptive behavior among college students: the role of communication, knowledge, sexual anxiety, and self-esteem. Archives of Sexual Behavior 14(4): 343–350. August 1985.
49. BURRIS, A. (US National Institute of Child Health and Human Development) [Testing long-acting microsphere injectable of testosterone] Personal communication, October 14, 1986.
50. CADAVID, C. Clinica para el hombre. [Clinic for men.] [SPA] 1986. 17 p. (Unpublished)
*51. CADAVID, C. Colombian clinic offers vasectomy services. Communique 7(1): 1. July 1986.
52. CAIN, M. Risk and insurance: perspectives on fertility and agrarian change in India and Bangladesh. Population and Development Review 7(3): 435–474. September 1981.
53. CARLOS, A.C. Male involvement in family planning: trends and directions. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: programme initiatives. London, IPPF, [1984]. p. 1–8.
54. CARTWRIGHT, A. Husbands and marriage. In: How many children? London, Routledge and Kegan Paul, 1976. p. 152–164.
55. CARTWRIGHT, A. Pregnancies and contraception. In: Parents and family planning services. New York, Atherton, 1970. p. 11–24.
56. CATES, W., Jr., WEISNER, P.J., and CURRAN, J.W. Sex and spermicides: preventing unintended pregnancy and infection. [Editorial] Journal of the American Medical Association 248(13): 1636–1637. October 1, 1982.
57. CENTER FOR POPULATION AND FAMILY HEALTH (CPFH). Activity report for the period January 13–February 3, 1986: operations research, Burkina Faso. [New York], CPFH, 1986. 13 p.
*58. CENTER FOR POPULATION OPTIONS (CPO). Programs at a glance: programs for young men. Washington, D.C., CPO, December 1985. 11 p. (Mimeo)
59. CHAMRATRITHIRONG, A., KAMNUANSILPA, P., and KNODEL, J. Contraceptive practice and fertility in Thailand: results of the third contraceptive prevalence survey. Studies in Family Planning 17(6): 278–287. November–December 1986.
60. CHAN, K.C., CARTER, M.J., and COLBOURNE, M.J. Family planning provisions and attitudes: a survey in three Hong Kong public housing estates. Hong Kong, Family Planning Association of Hong Kong, [1978]. 74 p.
61. CHAOUCH-BOURAOUI, T. Male involvement in family planning in the Arab world region. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: programme initiatives. London, IPPF, [1984]. p. 51–55.
62. CHEN, P.S.J. Singapore. In: David, H.P. and Lee, S.J., eds. Social and psychological aspects of fertility in Asia. Washington, D.C., Transnational Family Research Institute, 1974. p. 39–49.
*63. CHINA POPULATION INFORMATION CENTRE (CPIC). Analysis on China's national one-per-thousand-population fertility sampling survey. Beijing, China, CPIC, 1984. 182 p.
*64. CHULALONGKORN UNIVERSITY, INSTITUTE OF POPULATION STUDIES, and NATIONAL STATISTICAL OFFICE, POPULATION SURVEY DIVISION. The survey of fertility in Thailand. Country report. Vol. 1. Bangkok, Chulalongkorn University and National Statistical Office, 1977. (World Fertility Survey, Report No. 1) 188 p.
65. CHULALONGKORN UNIVERSITY, INSTITUTE OF POPULATION STUDIES, and NATIONAL STATISTICAL OFFICE, POPULATION SURVEY DIVISION. The survey of fertility in Thailand. Country report. Vol. 2. [Tables] Bangkok, Chulalongkorn University and National Statistical Office, 1977. (World Fertility Survey, Report No. 1) 524 p.
66. CLARK, S.D. An examination of the sperm content of human pre-ejaculatory fluid. Masters thesis, [Johns Hopkins University], Baltimore, September 1981. 69 p.
67. CLELAND, J., VERRALL, J., and VAESSEN, M. Preferences for the sex of children and their influence on reproductive behavior. Voorburg, Netherlands, International Statistical Institute, October 1983. (World Fertility Survey Comparative Studies Cross-National Summaries No. 27) 46 p.
68. COLE, C.H., LACHER, T.G., BAILEY, J.C., and FAIRCLOUGH, D.L. Vaginal chemoprophylaxis in the reduction of reinfection in women with gonorrhoea: clinical evaluation of the effectiveness of a vaginal contraceptive. British Journal of Venereal Diseases 56(5): 314–318. October 1980.
69. COLE, J.B. and ALLEN, F.C.L. Contraceptive responsibility among male university students. Journal of the American College Health Association 28(3): 168–172. December 1979.
*70. COLEMAN, S. Family planning in Japanese society: traditional birth control in a modern urban culture. Princeton, New Jersey, Princeton University Press, 1983. 269 p.
71. CONANT, M. Problems with sexual activity. Presented at the Herpes Simplex Clinical Practice and Research Symposium, San Francisco, January 1982.
*72. CONANT, M., HARDY, D., SERNATINGER, J., SPICER, D., and LEVY, J.A. Condoms prevent transmission of AIDS-associated retrovirus. Journal of the American Medical Association 255(13): 1706. April 4, 1986.
73. CONANT, M.A., SPICER, D.W., and SMITH, C.D. Herpes simplex virus transmission: condom studies. Sexually Transmitted Diseases 11(2): 94–95. April–June 1984.
74. COREY, L. Genital herpes: an overview and update. Herpes 4(1): 1–2. March 1982.
75. CORSON, S.L. Self-prediction of ovulation using a urinary luteinizing hormone test. Journal of Reproductive Medicine 31(8): 760–763. August 1986.
76. CUTLER, J.C., SINGH, B., CARPENTER, U., NICKENS, O., SCAROLA, A., SUSSMAN, N., WADE, M., VOLKIN, L., MARSICO, A., and BALISKY, H. Vaginal contraceptives as prophylaxis against gonorrhea and other sexually transmissible diseases. Advances in Planned Parenthood 12(1): 45–56. 1977.
*77. DE CASTRO, M.P.P., FOREIT, K.G., FRANCO, E., and FOREIT, J.R. Effectiveness and cost effectiveness of mass media promotion of vasectomy services in São Paulo, Brazil. Presented at the 114th Annual Meeting of the American Public Health Association, Las Vegas, Nevada, September 30, 1986. 12 p.
*78. DE CASTRO, M.P.P., MASTROROCCO, D.A., DE CASTRO, B.M., and MUMFORD, S.D. An innovative vasectomy program in São Paulo, Brazil. International Family Planning Perspectives 10(4): 125–130. December 1984.
79. DE LA MACORRA, L. Brazil: a success story. In: Huber, S.C., ed. Social marketing of vasectomy services: an international review. Querétaro, México, Social Marketing International Association, [1986]. p. 45–62.
80. DEL QUIARO, R. The toll of drought and machismo. People 9(2): 26–27. 1982.
81. DHAR, G.M. and ZUTSHI, M.L. Attitude towards family planning: a study of inpatient attendants. Indian Journal of Public Health 21(2): 89–94. April–June 1977.
82. DICKSON, C. (Interstate Securities Inc.) [Condom sales in the US] Personal communication, February 9, 1987.
*83. DICZFALUSY, E. Special programme of research, development and research training in human reproduction: the first fifteen years: a review. Contraception 34(1): 1–119. July 1986.
84. DILLER, L. A social and historical update. In: Swanson, J.M. and Forrest, K.A., eds. Men's reproductive health. New York, Springer Publishing, 1984. (Springer Series: Focus on Men, Vol. 3) p. 207–213.
85. DILLER, L. and HEMBREE, W. Male contraception and family planning: a social and historical review. Fertility and Sterility 28(12): 1271–1279. December 1977.
86. DOHM, T.E. Age at marriage. Options for Policy and Practice 4(3): 1–13. May–June 1978.
87. DOMINICAN REPUBLIC. CONSEJO NACIONAL DE POBLACION Y FAMILIA (CONAPOFA), and WESTINGHOUSE HEALTH SYSTEMS (WHS). Republica Dominicana: Encuesta Nacional de Prevalencia del Uso de Anticonceptivos—mujeres: informe de resultados. [Dominican Republic: National Contraceptive Prevalence Survey—women: report of findings.] [SPA] [Santo Domingo, Dominican Republic], CONAPOFA and [Columbia, Maryland], WHS, 1984. (Contraceptive Prevalence Surveys) 187 p.
*88. DOMINICAN REPUBLIC. CONSEJO NACIONAL DE POBLACION Y FAMILIA (CONAPOFA), and WESTINGHOUSE HEALTH SYSTEMS (WHS). Republica Dominicana—Encuesta Nacional de Prevalencia de Anticonceptivos—hombre: in-

forme de resultados. [Dominican Republic—National Contraceptive Prevalence Survey—men: report of results.] [SPA] [Santo Domingo], Dominican Republic, CONAPOFA, and Columbia, Maryland, WHS, 1985. (Contraceptive Prevalence Surveys) 163 p.
89. DURRELL–McKENNA, N. Enrolling male support. People 9(2): 21. 1982.
90. DUSITSIN, N., BOONSIRI, B., and CHITPATIMA, K. Bangkok: are males resistant to sterilization? [EN, summary in FR] International Family Planning Perspectives 6(1):26–27. March 1980.
91. EKSTRÖM, K. Patterns of sexual behaviour in relation to venereal disease. British Journal of Venereal Diseases 46(2): 93–95. April 1970.
92. ERASMUS G. Besluitneming met betrekking tot die gebruik van kontrasepsie na bevalling: 'n Swart gemeenskap in Daveyton. [Decision–making in relation to the use of contraception after delivery: a black community in Daveyton.] [AFR, summary in ENG] Pretoria, South Africa, Raad vir Geesteswetenskaplike Navorsing, 1983. (Navorsingsbevinding SN–243) 15 p.
93. ERREY, B.B. and EDWARDS, I.S. Open–ended vasectomy: an assessment. Fertility and Sterility 45(6): 843–846. June 1986.
94. ESPENSHADE, T.J. (Urban Institute) [Estimated cost of raising a child in the US] Personal communication, February 2, 1987.
95. ESPENSHADE, T.J. The value and cost of children. Population Bulletin 32(1): 1–47. April 1977.
96. EWING, L.L. Testosterone–estradiol contraception in the male rhesus monkey. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. p. 304–319.
97. FAMILY HEALTH INTERNATIONAL. "Condom gap" examined in Bangladesh survey. Network 5(3): 5. Spring 1984.
98. FAMILY HEALTH INTERNATIONAL. Experts meet to discuss predictors of ovulation. Network 6(2): 1–2. Winter 1985.
99. FAMILY PLANNING ASSOCIATION OF BANGLADESH (FPAB). Family planning services for police–armed forces. In: 1985 annual report. [Dacca], Bangladesh, FPAB, [1986]. p. 19–38.
100. FAMILY PLANNING ASSOCIATION OF HONG KONG (FPAHK). Family planning knowledge, attitude and practice in Hong Kong 1982. Hong Kong, FPAHK, 1984. 125 p.
101. FAMILY PLANNING ASSOCIATION OF HONG KONG (FPAHK). Press conference on the "Mr Able" family planning campaign. Hong Kong, FPAHK, October 28, 1986. 1 p. (Press release)
102. FAMILY PLANNING ASSOCIATION OF INDIA (FPAI). Lucknow project for promotion of family planning among men. In: Annual Report 1985. [New Delhi], FPAI, 1985. p. 186–188. (Mimeo)
103. FAMILY PLANNING ASSOCIATION OF INDIA (FPAI). Male involvement through workers in industries. In: Annual Report 1985. [New Delhi], FPAI, 1985. p. 183–185. (Mimeo)
104. FAMILY PLANNING ASSOCIATION OF SRI LANKA (FPASL). Annual Report: 1984. Colombo, Sri Lanka, FPASL, [1985]. 56 p.
105. FAMILY PLANNING INTERNATIONAL ASSISTANCE (FPIA). Annual Report: 1985. New York, FPIA, [1986]. 210 p.
106. FAMILY PLANNING PRIVATE SECTOR PROGRAMME (FPPSP). Family Planning Private Sector Programme: annual report 1985. Nairobi, Kenya, FPPSP, 1985. 61 p.
107. FEIGENBAUM, E. Males and family planning: an attitudinal survey of 1200 teen and adult males in Merced County. [1978]. 43 p. (Unpublished)
108. FERIN, J. Determination de la période sterile prémenstruelle par la courbe thermique. [Determination of the premenstrual infertile period by means of the thermal curve.] [FRE] Bruxelles Medica 27: 2786–2793. 1947.
109. FERRY, J. AIDS ads flourishing: Europeans warned about dangers. Advertising Age, December 1, 1986. p. 70–71.
110. FIGA–TALAMANCA, I. Inconsistencies of attitudes and behavior in family–planning studies. Journal of Marriage and the Family 34: 336–344. May 1972.
111. FISEK, N.H. and SUMBULOĞLU, K. The effects of husband and wife education on family planning in rural Turkey. Studies in Family Planning 9(10–11): 280–285. October–November 1978.
*112. FOLCH–LYON, E., DE LA MACORRA, L., and SCHEARER, S.B. Focus group and survey research on family planning in Mexico. Studies in Family Planning 12(12): 409–432. December 1981.
*113. FORREST, K. Giving clinics man appeal. People 13(1): 6–7. 1986.
114. FORREST, K.A. Condoms and withdrawal. In: Swanson, J.M. and Forrest, K.A., eds. Men's reproductive health. New York, Springer Publishing, 1984. p. 214–225.
115. FOX, L.S. Adolescent male reproductive responsibility. Social Work in Education 6(1): 32–43. Fall 1983.
116. FOX, R. Kinship and marriage: an anthropological perspective. Cambridge, United Kingdom, Cambridge University Press, 1983. 76 p.
117. FREE, M.J. Condoms: the rubber remedy. In: Corson, S.L., Derman, R.J., and Tyrer, L.B., eds. Fertility control. Boston, Little, Brown, 1985. p. 257–268.
118. FREE, M.J. Reversible intravasal devices: state of the art. In: Sciarra, J.J., Zatuchni, G.I., and Speidel, J.J., eds. Reversal of sterilization. Hagerstown, Maryland, Harper & Row, 1978. (PARFR Series on Fertility Regulation) p. 64–80.
119. FREE, M.J. and ALEXANDER, N.J. Male contraception without prescription: a reevaluation of the condom and coitus interruptus. Public Health Reports 91(5): 437–445. October 1976.
120. GACHUKIA, E.W. The role of the male in fertility management decisions. Presented at the Conference on Reproductive Health Management in Sub–Sahara Africa, Freetown, Sierra Leone, November 5–8, 1984. 8 p.
121. GIGES, N. AIDS scare could lead nets to run ads for condoms. Advertising Age, December 15, 1986. p. 1, 101.
122. GLASS, R., VESSEY, M., and WIGGINS, P. Use–effectiveness of the condom in a selected family planning clinic population in the United Kingdom. Contraception 10(6): 591–598. December 1974.
123. GOLDBERG, E. and SHELTON, J.A. Immunologic properties of LDH–C4 for contraceptive vaccine development. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 435–446.
124. GOLDMAN, N., PEBLEY, A.R., and WESTOFF, C.F. Probabilities of conception in Latin America. Presented at the meeting of the Population Association of America, San Diego, California, April 30, 1982.
125. GOLDSTEIN, R. Rubber soul: the condom makes a comeback. Village Voice 31(9): 17– , March 4, 1986.
126. GONZALES, B. Experts reach conclusions on vasectomy practice. Communiqué 4(2): 10. August 1983.
127. GORNEY, C. Television tackles a taboo: in network series and local ads, condoms are no longer unmentionable. Washington Post, February 3, 1987. p. E1, E8.
128. GRADY, W.R., HIRSCH, M.B., KEEN, N., and VAUGHAN, B. Differentials in contraceptive use failure among married women aged 15–44 years: United States 1970–76. Washington, D.C., National Center for Health Statistics, [1981]. 42 p. (Mimeo)
129. GRAY, R., KAMBIC, R., BICEGO, G., PEREZ, A., EGER, R., and DOMENICHINI, V. Outcome of pregnancy. [Letter] Fertility and Sterility 44(4): 554–555. October 1985.
130. GUERRERO, R. The aging of gametes: the known and the unknown. Linacre Quarterly 45(4): 345–357. November 1978.
131. GUERRERO, R. and ROJAS, O.I. Spontaneous abortion and aging of human ova and spermatozoa. New England Journal of Medicine 293(12): 573–575. September 18, 1975.
132. GUILLEBAUD, J. Vasectomy: the role of the private and the NHS clinic. In: Roe, J., ed. Sterilisation: services, organisation, procedures. London, Birth Control Trust, 1982. p. 35–39.
133. GULHATI, K. In the hands of men. People 13(1): 3–4. 1986.
134. GULICK, B. (Schmid Laboratories) [Introduction of spermicidal condom in US] Personal communication, September 8, 1986.
135. HACETTEPE INSTITUTE OF POPULATION STUDIES. Turkish Fertility Survey: 1978. First report. Vol. 1: Methodology and findings. [Ankara], Hacettepe Institute of Population Studies, 1980. 213 p.
136. HALL, M.–F. Male attitudes to family planning education in Santiago, Chile. Journal of Biosocial Science 3: 403–416. 1971.
137. HALL, M.–F. Male use of contraception and attitudes toward abortion, Santiago, Chile, 1968. Milbank Memorial Fund Quarterly 48(2, Pt.1): 145–166. April 1970.
*138. HALLOUDA, A.M., AMIN, S.Z., COCHRANE, S.H., and FARID, S.M. The Egyptian Fertility Survey, 1980. Vol. 3: Socio–economic differentials and comparative data from husbands and wives. Cairo, Central Agency for Public Mobilisation and Statistics, 1983. (World Fertility Survey) 106 p.
139. HAQ, M.S. New directions in the government of Bangladesh's vasectomy program. Presented at the Conference on Vasectomy, Colombo, Sri Lanka, October 4–7, 1982. 7 p. (Mimeo)
140. HARLAP, S., SHIONO, P.H., RAMCHARAN, S., GOLBUS, M., BACHMAN, R., MANN, J., and LEWIS, J.P. Chromosomal abnormalities in the Kaiser–Permanente Birth Defects Study, with special reference to contraceptive use around the time of conception. Teratology 31(3): 381–387. June 1985.
141. HART, G. Factors influencing venereal infection in a war environment. British Journal of Venereal Diseases 50(1): 68–72. February 1974.
142. HATCHER, R.A. Condom distribution through family planning clinic patients. December 2, 1986. 4 p. (Unpublished)
143. HATCHER, R.A., GUEST, F., STEWART, F., STEWART, G.K., TRUSSELL, J., and FRANK, E. Contraceptive technology 1984–1985. 12th ed. New York, Irvington Publishers, 1984. 304 p.
144. HAYASHI, H., CEDENHO, A.P., and SADI, A. The mechanism of spontaneous recanalization of human vasectomized ductus deferens. Fertility and Sterility 40(2): 269–270. August 1983.
145. HEISEL, D.F. Fertility limitation among men in rural Kenya. Studies in Family Planning 4(12): 351–355. December 1973.
*146. HEISLER, D. and LEWIS, G.L. The Dominica Male Family Planning Survey Country Report 1982. Rouseau, Dominica, Dominica Planned Parenthood Association, and Columbia, Maryland, Westinghouse Public Applied Systems, August 1985. (Contraceptive Prevalence Surveys) 74 p.
147. HICKS, D.R., MARTIN, L.S., GETCHELL, J.P., HEATH, J.L., FRANCIS, D.P., MCDOUGAL, J.S., CURRAN, J.W., and VOELLER, B. Inactivation of HTLV–III/LAV–infected cultures of normal human lymphocytes by nonoxynol–9 in vitro. Lancet 2(8469–8470): 1422–1423. December 21–28, 1985.
148. HIMES, N.E. Medical history of contraception. New York, Schocken Books, 1970. 521 p.
*149. HOLLERBACH, P.E. Power in families, communication and fertility decision–making. New York, Population Council, January 1980. (Center for Policy Studies Working Paper No. 53) 35 p.
150. HUANG, M.–K. and MA, Y.–M. Epidemiological investigation on the complications following vasectomy. Reproduction and Contraception (China) 6(3): 27, 35–38. 1986.
151. HUBER, D. (Association for Voluntary Surgical Contraception) [The Chinese puncture method of vasectomy] Personal communication, January 21, 1987.
*152. HUBER, D., FATHALLA, M., GOJASENI, P., GOLDSTEIN, M., LIPPES, J., MINOR, K., RAUFF, M., and SCIARRA, J. Trip report: The People's Republic of China (Beijing, Chongqing, Wuhan, Guangzhou), June 19–30, 1985. [New York], Association for Voluntary Sterilization, 1985. 47 p. (Mimeo)
*153. HUBER, D.H., HONG, S., and ROSS, J.A. The international experience with vasectomy. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 7–18.
154. HUBER, S.C., PIOTROW, P.T., POTTS, M., ISAACS, S.L., and RAVENHOLT, R.T. Contraceptive distribution: taking supplies to villages and households. Population Reports, Series J, No. 5. Washington, D.C., Population Information Program, July 1975. 28 p.
155. ILORI, F.D. Sex differentials in attitude to family size in Nigeria and their implications for family planning programmes. In: Chojnacka, H., Olusanya, P.O., and Ojo, F., eds. Population and economic development in Nigeria in the nineteen eighties. (Proceedings of a national workshop, University of Lagos, September 12–14, 1979) New York, United Nations, Department of Technical Co–operation for Development, 1981. (TCD/SEM.81/2) p. 209–219.
156. INDIA. MINISTRY OF HEALTH AND FAMILY WELFARE (MOH). Nirodh programme: a pioneering social marketing project in India. [Brochure] New Delhi, MOH, November 1984. 4 p.
157. INDONESIAN PLANNED PARENTHOOD ASSOCIATION (IPPA). Male involvement in FP in Jambi. IPPA Newsletter, No. 31. March 1985. p. 6.
158. INTERNATIONAL LABOUR OFFICE (ILO). Population education: its place in work–related training. [Booklet] Geneva, ILO, 1978. 11 p.
159. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). Action area 6: male participation in family planning. In: IPPF plan 1988–90. London, IPPF, November 1986. p. 17–18.
160. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). IPPF Plan 1985–87. London, IPPF, February 1984. 26 p.
*161. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). Male involvement in family planning: report of an IPPF staff consultation. London, IPPF, February 1984. 56 p.
162. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). Male involvement in family planning: some approaches for FPAs. London, IPPF, August 1981. 13 p.
163. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). Men and family planning—a global view. Concern, No. 20, January–March 1981. p. 1–2.
164. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). CENTRAL EXECUTIVE COMMITTEE. Policy statement on male involvement in family planning. London, IPPF, March 1985. 2 p. (Mimeo)
*165. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). Male involvement in family planning: program initiatives. London, IPPF, [1984]. 196 p.
166. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). WESTERN HEMISPHERE REGION (WHR). Sterilizations by sex and percentages of male to female sterilizations and total number of sterilizations as percentage of total new acceptors: 1979–1984. [Tables] [New York], IPPF WHR, [1986]. 3 p.
167. INTERNATIONAL PLANNED PARENTHOOD FEDERATION. Sporting hero launches Australian "Men Too" campaign. IPPF Open File, February 14, 1986. p. 9.
168. INTERNATIONAL PROJECT OF THE ASSOCIATION FOR VOLUNTARY STERILIZATION (IPAVS). Minimum medical service standards for male voluntary surgical contraception programs. New York, IPAVS, 1980. 32 p.
169. JAGDEO, T.P. Contraceptive prevalence in St. Kitts–Nevis. New York, International Planned Parenthood Federation, 1985. (IPPF/WHR Caribbean Contraceptive Prevalence Surveys, No. 1—St. Kitts–Nevis) 126 p.
170. JAMAICA. NATIONAL FAMILY PLANNING BOARD. Male education update. Man Talk 1(1): 7. September 1985.
171. JAMAICA. NATIONAL FAMILY PLANNING BOARD. ADOLESCENT FERTILITY RESOURCE CENTRE (AFRC). Male responsibility programme. AFRC Newsletter, June 1985. p. 5.
172. JAMAICA. NATIONAL FAMILY PLANNING BOARD. ADOLESCENT FERTILITY RESOURCE CENTRE (AFRC). Teenage pregnancy advertising campaign. AFRC Newsletter, June 1985. p. 1.
173. JEZOWSKI, T.W. and AHMAD, J.S. The experience of the Association for Voluntary Sterilization in supporting vasectomy programs. Presented at the Conference on Vasectomy, Colombo, Sri Lanka, October 4–7, 1982. 22 p.
174. JICK, H., HANNAN, M.T., STERGACHIS, A., HEIDRICH, F., PERERA, D.R., and ROTHMAN, K.J. Vaginal spermicides and gonorrhea. Journal of the American Medical Association 248(13): 1619–1621. October 1, 1982.
175. JOHN SNOW INC. (JSI). Enterprise program activities update: December 1986. Arlington, Virginia, JSI, 1986. (Mimeo) 19 p.
176. JOHN SNOW INC. (JSI). The Enterprise Program. [Brochure] Arlington, Virginia, JSI, [1986]. 5 p.
177. JOHNSTON, J.A., ROBERTS, D.B., and SPENCER, R.B. A survey evaluation of the efficacy and efficiency of natural family planning services and methods in Australia: report of a research project. Sydney, Australia, St. Vincent's Hospital, 1978. 436 p.
178. JOSEPH, F.G. Psychosocial aspects of family planning in Kenya. In: David, H.P., ed. Proceedings of the Conference on Psychology and Family Planning, (August 1–2, 1971, Nairobi, Kenya) Bethesda, Maryland, Transnational Family Research Institute, 1972. p. 72–77.
179. KAMBIC, R., KAMBIC, M., BRIXIUS, A.M., and MILLER, S. A thirty month clinical experience in natural family planning: some client characteristics and effectiveness in avoiding pregnancies. [1981] 22 p. (Unpublished)
180. KASAMBIRA, K. The use of radio in family planning in Zimbabwe: a case study. [1986]. 10 p. (Unpublished)
181. KEITH, L., BERGER, G.S., and MOSS, W. Cervical gonorrhea in women using different methods of contraception. Journal of the American Venereal Disease Association 3(1): 17–19. September 1976.
182. KEITH, L., KEITH, D., BUSSELL, R., and WELLS, J. Attitudes of men toward contraception. Archiv fuer Gynaekologie 220(2): 87–97. 1975.
183. KEITH, L., SWARTWOUT, J., HAKSAR, K., and GREEN, R. Male attitudes toward family planning: a preliminary survey. Chicago Medical School Quarterly 30(2–4): 59–63. 1971.
184. KENDRICK, J.S. and RUBIN, G.L. Vasectomies performed by private physicians, United States, 1980–1984. Fertility and Sterility 46(3): 528–530. September 1986.
185. KESSLER, R. and FREIHA, F. Macroscopic vasovasostomy. Fertility and Sterility 36(4): 531–532. October 1981.
186. KHAN, M.E. and PRASAD, C.V.S. A comparison of 1970 and 1980 survey findings on family planning in India. Studies in Family Planning 16(6): 312–320. November–December 1985.
187. KIPPLEY, J. and KIPPLEY, S. The art of natural family planning. Cincinnati, Ohio, Couple to Couple League International, 1979. 256 p.
188. KLEINMAN, R.L., ed. Family planning handbook for doctors. London, International Planned Parenthood Federation, 1980. 243 p.
189. KNAUS, H. Die periodische Frucht– und Unfruchtbarkeit des Weibes. [Periodic fertility and infertility in women.] [GER] Zentralblatt für Gynäkologie 57(24):

1393. June 1933.
190. KNUTH, U.A., BEHRE, H., BELKIEN, L., BENTS, H., and NIESCHLAG, E. 19-nortestosterone for male fertility regulation. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 320–328.
191. KOFFMAN, M. (Family Planning International Assistance) [Nigeria Contraceptive Social Marketing Program] Personal communication, November 3, 1986.
192. KOREA INSTITUTE FOR POPULATION AND HEALTH (KIPH). [1985 fertility and family health survey.] [KOR] Seoul, Korea, KIPH, 1985. p. 76–77.
*193. KRYSTALL, E. Private sector family planning. Populi 12(3): 34–39. 1985.
194. KUHR, M.D. Neural-tube defects and mid-cycle abstinence: a test of the "over-ripeness" hypothesis in man. Developmental Medicine and Child Neurology 19(5): 589–592. October 1977.
195. KUSEMIJU, B. (Planned Parenthood Federation of Nigeria) [Male involvement projects in Nigeria] Personal communication, September 16, 1986.
196. KWANSA, E. [PPF consultation on male involvement in family planning: the Ghanaian experience. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: program initiatives. London, IPPF, [1984]. p. 68–80.
*197. LADIPO, O.A., NICHOLS, D.I., PAXMAN, J.M., DELANO, G., KELLY, S.E., and OTOLORIN, E.O. Sexual behavior, contraceptive practice and reproductive health among the young unmarried population in Ibadan, Nigeria: final report. July 1983. 67 p. (Unpublished)
198. LAING, J.E. Differentials in contraceptive use-effectiveness in the Philippines. Studies in Family Planning 5(10): 302–313. October 1974.
*199. LALA, E.S. Male involvement in family planning: strategies for action. Population Education News, July 1985. p. 10–13.
200. LAM, P. The Family Planning Association of Hong Kong (FPAHK): male responsibility promotion. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning. London, IPPF, [1984]. p. 97–111.
201. LAM, P. (Family Planning Association of Hong Kong (FPAHK)) [FPAHK activities for young people] Personal communication, December 31, 1986.
202. LAM, P. (Family Planning Association of Hong Kong) [New "Mr. Able" male responsibility campaign] Personal communication, November 14, 1986.
203. LAM, P. (Family Planning Association of Hong Kong) [Trends in male contraception acceptors in Hong Kong] Personal communication, August 28, 1986.
204. LAMPTEY, P., NICHOLAS, D.D., OFOSU-AMAAH, S., and LOURIE, I.M. An evaluation of male contraceptive acceptance in rural Ghana. Studies in Family Planning 9(8): 222–226. August 1978.
205. LANDRY, E. and PURSER, S. Strategies for reducing male opposition to family planning. (Final report) May 1986. 28 p. (Unpublished)
206. LANDRY, E.G., McINTYRE, D., and JACOB, J. Teens in Dominica: what do they know about family life education? (Final report) May 1986. 27 p. (Unpublished)
207. LEDGER, W.J. Relationship of pelvic infection to various types of contraception. Clinical Obstetrics and Gynecology 17(1): 79–91. March 1974.
208. LEE POY, P. (International Planned Parenthood Federation, Western Hemisphere Region) [Male responsibility projects in the Caribbean] Personal communication, September 22, 1986.
209. LEE, H.Y. and MEMBERS OF THE VASECTOMY STUDY PROJECT, SEOUL NATIONAL UNIVERSITY HOSPITAL. Observations of the results of 300 vasovasostomies. Journal of Andrology 1(1): 11–15. January-February 1980.
210. LESOTHO DISTANCE TEACHING CENTRE (THERO EA MALAPA LESOTHO). and LESOTHO FAMILY PLANNING ASSOCIATION. Thabo's home coming. [Booklet] [Maseru], Lesotho, Lesotho Distance Teaching Centre and Lesotho Family Planning Association, 1977. 12 p.
211. LESOTHO DISTANCE TEACHING CENTRE. The use of photo-strips in family planning education. [1977.] 24 p. (Unpublished)
212. LEWIS, D.H. and ASCH, R.H. Preclinical evaluations of injectable testosterone microcapsules. [Abstract] Advances in Contraception 2(3): 266–267. September 1986.
213. LEWIS, D.H., TICE, T.R., and BECK, L.R. Overview of controlled release systems for male contraception. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 336–346.
*214. LEWIS, G.L. and HEISLER, D. The Barbados Male Family Planning Survey country report 1982. Columbia, Maryland, Westinghouse Public Applied Systems and Bridgetown, Barbados, Barbados Family Planning Association, August 1985. (Contraceptive Prevalence Surveys) 68 p.
*215. LEWIS, G.L. and HEISLER, D. The St. Kitts-Nevis Male Family Planning Survey country report 1982. Columbia, Maryland, Westinghouse Public Applied Systems and Basseterre, St. Kitts, St.Kitts-Nevis Family Planning Association, August 1985. (Contraceptive Prevalence Surveys) 70 p.
*216. LI, S. and ZHU, J. Percutaneous injection of vas deferens for sterilization: ten years follow-up on 671 cases. Chongqing, China, Chongqing Family Planning Scientific Research Institute, 1986. 11 p. (Mimeo)
217. LISKIN, L., KAK, N., RUTLEDGE, A.H., SMIT, L.C., and STEWART, L. Youth in the 1980s: social and health concerns. Population Reports, Series M, No. 9. Baltimore, Johns Hopkins University, Population Information Program, November-December 1985. 40 p.
218. LISKIN, L., PILE, J.M., and QUILLIN, W.F. Vasectomy—safe and simple. Population Reports, Series D, No. 4. Baltimore, Johns Hopkins University, Population Information Program, November-December 1983. 40 p.
219. LISKIN, L.S. and FOX, G. Periodic abstinence: how well do new approaches work? Population Reports, Series I, No. 1. Baltimore, Johns Hopkins University, Population Information Program, September 1981. 40 p.
*220. LONDON, K., CUSHING, J., RUTSTEIN, S.O., CLELAND, J., ANDERSON, J.E., MORRIS, L., RUTSTEIN, S.O., and MOORE, S.H. Fertility and family planning surveys: an update. Population Reports, Series M, No. 8. Baltimore, Johns Hopkins University, Population Information Program, September-October 1985. 60 p.
221. LOTTER, J.M. Attitudes of black South African men towards fertility and family planning. Pretoria, South Africa, South African Human Sciences Research Council, 1977. (Research Finding No. S-N-96) 16 p.
222. MANOFF, R.K. Social marketing: new imperative for public health. New York, Praeger, 1985. 293 p.
223. MARKET RESEARCH SERVICES (MRS). A qualitative assessment of attitudes towards and usage of contraceptives among Jamaican males. Kingston, Jamaica, MRS, April 1984. (MRS Report No. 487) 26 p.
224. MARSHALL, J. Planning for a family: an atlas of temperature charts. London, Faber and Faber, 1965. 159 p.
225. MARSHALL, J. The infertile period: principles and practice. Baltimore, Helicon Press, 1963. 118 p.
*226. MASSEY, F.I., BERNSTEIN, G.S., O'FALLON, W.M., et al. Vasectomy and health: results from a large cohort study. Journal of the American Medical Association 252(8): 1023–1029. August 24–31, 1984.
227. MASSEY, F.I., BERNSTEIN, G.S., SCHUMAN, L.M., and O'FALLON, W.M. Results from the Collaborative Vasectomy Study. Presented at the 11th Annual Meeting of the American Public Health Association, Dallas, Texas, November 13–17, 1983.
228. MASTERS, W.H. and JOHNSON, V.E. Human sexual response. Boston, Little, Brown, 1966. 366 p.
229. MAURITIUS FAMILY PLANNING ASSOCIATION (MFPA). Male responsibility in family planning. (Project description) In: 1986 work programme-budget. Port Louis, Mauritius, MFPA, [1985]. p. 33–34.
230. McCALISTER, D. and THIESSEN, V. Prediction in family planning: prediction of the adoption and continued use of contraception. American Journal of Public Health 60(8): 1372–1381. August 1970.
231. MCCLURE, Z. Failure rates of contraceptive methods. Family Planning Information Service 1(6): 59–61. April 1981.
232. McGUIRE, R. First male contraceptive on horizon? Medical Tribune 27(27): 1, 22. September 24, 1986.
233. MEDINA, J.E., CIFUENTES, A., ABERNATHY, J.E., SPIELER, S.M., and WADE, M.D. Comparative evaluation of two methods of natural family planning in Colombia. American Journal of Obstetrics and Gynecology 138(8): 1142–1147. December 15, 1980.
234. MENZIES, H.D. Back to a basic contraceptive. New York Times, January 5, 1986.
235. MEREDITH, P. (International Planned Parenthood Federation) [FPA activities with the armed forces in Turkey] Personal communication, January 16, 1987.
236. MILLIGAN, A. The forgotten men of Kenya. People 13(1): 10–11. 1986.
237. MILLS, A. Barrier contraception. Clinics in Obstetrics and Gynaecology 11(3): 641–660. December 1984.
238. MISRA, B.D. Comparison of husbands' and wives' attitudes toward family planning. Journal of Family Welfare 12(4): 9–23. June 1966.
239. MISRA, B.D. Correlates of males' attitudes towards family planning. In: Bogue, D.J., ed. Sociological contributions to family planning research. Chicago, University of Chicago, Community and Family Study Center, 1967. p. 161–271.
240. MISRA, S. Poignant problems. People 10(4): 6–7. 1983.
241. MITCHELL, R.E. Husband-wife relations and family-planning practices in urban Hong Kong. Journal of Marriage and the Family 34(1): 139–145. February 1972.
*242. MONROY DE VELASCO, A. Integrating sexual orientation into health services for adolescents: a Latin American experience. 1985. 16 p. (Unpublished)
243. MOORE, A. and MURPHY, P. Attitudes, knowledge and the extent of use of artificial contraception in social classes 4 and 5 in Ireland. Journal of the Irish Medical Association 73(9): 342–347. September 1980.
244. MORRIS, L., LEWIS, G., POWELL, D.L., ANDERSON, J., WAY, A., CUSHING, J., and LAWLESS, G. Contraceptive Prevalence Surveys: a new source of family planning data. Population Reports, Series M, No. 5. Baltimore, Johns Hopkins University, Population Information Program, May-June 1981. 40 p.
*245. MORRIS, L., NUNEZ, L., MONROY DE VELASCO, A., BAILEY, P., CARDENAS, C., and WHATLEY, A. Sexual experience and contraceptive use among young adults in Mexico City. Presented at the meeting of the U.S.-Mexico Border Public Health Conference, Monterrey, Mexico, April 19, 1986. 25 p.
246. MOSHER, W.D. and BACHRACH, C.A. First premarital contraceptive use: United States, 1960's-1982. August 1986. 45 p. (Unpublished)
247. MOSHER, W.D. and WESTOFF, C.F. Trends in contraceptive practice: United States, 1965–76. NCHS Vital and Health Statistics, Series 23, No. 10. February 1982. (Data from the National Survey of Family Growth) 52 p.
248. MOSS, W.M. (Doctors Family Planning Medical Group, Inc.) [Open-ended vasectomy] Personal communication, February 9, 1987.
249. MOSS, W.M. Vasectomy failure after use of an open-ended technique. [Letter] Fertility and Sterility 43(4): 667. April 1985.
250. MUKHERJEE, B.N. The role of husband-wife communication in family planning. Journal of Marriage and the Family 37(3): 655–667. August 1975.
251. MUMFORD, S.D. The implications of the decision-making process and counseling for vasectomy programs. Presented at the Conference on Vasectomy, Colombo, Sri Lanka, October 4–7, 1982. 13 p.
252. MUMFORD, S.D. The vasectomy decision-making process. Studies in Family Planning 14(3): 83–88. March 1983.
253. MUSALLAM, B.F. Sex and society in Islam: birth control before the nineteenth century. Cambridge, UK, Cambridge University Press, 1983. 176 p.
*254. MUSTAFA, M.A.B. and MUMFORD, S.D. Male attitudes towards family planning in Khartoum, Sudan. Journal of Biosocial Science 16(4): 437–449. October 1984.
255. NAEYE, R.L. The role of the pathologist in the developing world. In: Philpott, R.H., ed. Maternity services in the developing world: what the community needs. London, Royal College of Obstetricians and Gynaecologists, 1979. p. 19–38.
256. NAEYE, R.L. and ROSS, S. Coitus and chorioamnionitis: a prospective study. Early Human Development 6(1): 91–97. January 1982.
257. NAIR, N.K. Fertility and family planning in Barbados: findings from the Contraceptive Prevalence Survey 1980–81. Columbia, Maryland, Westinghouse Health Systems, 1982. (Contraceptive Prevalence Surveys) 144 p.
258. NATIONAL COORDINATING GROUP ON MALE ANTI-FERTILITY AGENTS. Gossypol—a new antifertility agent for males. Chinese Medical Journal 4(6): 417–428. November 1978.
*259. NATIONAL URBAN LEAGUE (NUL). Male responsibility programs and activities descriptions. [New York], NUL, [1986]. 6 p.
260. NATIONAL URBAN LEAGUE (NUL). NUL's male responsibility campaign to be expanded. New York, NUL, May 23, 1986. 3 p. (Press release)
261. NATIONAL URBAN LEAGUE. Affiliates back drive to reach teens. ADAPP News, No. 2, March 1986. p. 3, 5, 8.
*262. NATIONAL URBAN LEAGUE. Update on male responsibility campaign. ADAPP News, No. 3, July 1986. p. 2.
263. NIESCHLAG, E. Reasons for abandoning immunization against FSH as an approach to male fertility regulation. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 395–400.
264. NIESCHLAG, E., MICHEL, E., and WEINBAUER, G.F. Preclinical and clinical trials with LHRH agonists and antagonists. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 369–375.
265. NIRAPATHPONGPORN, A. and VIRAVAIDYA, M. Clients referral system of the community-based voluntary sterilization project. Presented at the 5th International Conference on Voluntary Surgical Contraception, Santo Domingo, Dominican Republic, December 5–8, 1983. 13 p.
266. NIRAPATHPONGPORN, A., HAYSSEN, J., and VIRAVAIDYA, M. The King's Birthday Vasectomy Festival: a world record for male voluntary surgical contraception. Bangkok, Thailand, Population and Community Development Association, July 1984. 12 p. (Mimeo)
267. NOLASCO, A.D. Male concepts: on masculinity, parenthood and family planning. Population Forum 7(1): 6–8. 1981.
268. NORTMAN, D.L. Population and family planning programs: a compendium of data through 1983. 12th ed. New York, Population Council, 1985. 58 p.
269. O'BRIEN, D. (John Snow Inc./The Enterprise Program) [Subprojects with companies in Indonesia and Nigeria] Personal communication, September 19, 1986.
270. O'DONNELL, N. High tech natural family planning: the future of fertility control? Presented at the 4th National Natural Family Planning Conference, Washington, D.C., November 3–6, 1985. 7 p.
271. OECHSLI, F.W. Studies of the consequences of contraceptive failure: final report. Berkeley, California, University of California, Berkeley, April 8, 1976. 20 p.
272. OGAZON, A. (Family Planning International Assistance) [Male distributors in CEMOPLAF CBD program in Ecuador] Personal communication, December 12, 1986.
273. OGINO, K. Ovulationstermin und Konzeptionstermin. [Ovulation day and conception day.] [GER] Zentralblatt für Gynäkologie 54(8): 464–479. February 1930.
274. OJEIFO, J.O. and SINGH, B. Paternal health services: a missing link in family health services. Presented at the 11th Annual NCIH International Health Conference, Arlington, Virginia, June 10–13, 1984. 28 p.
275. OLUKOYA, A.A. The changing attitude and practice of men regarding family planning in Lagos, Nigeria. Public Health (London) 99(6): 349–355. November 1985.
276. ONYANGO-OMUODO, D. Promoting male responsibility in family planning in the Africa region. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: programme initiatives. London, IPPF, [1984]. p. 9–12.
277. ORR, M.T., FORREST, J.D., JOHNSON, J.H., and TOLMAN, D.L. The provision of sterilization services by private physicians. Family Planning Perspectives 17(5): 216–220. September-October 1985.
278. OWEN, E.R. and KAPILA, H. Technique and reasons for successful vasectomy reversals in over 400 cases. In: Semm, K. and Mettler, L., eds. Human reproduction: proceedings of 3rd World Congress, Berlin, March 22–26, 1981. Amsterdam, Excerpta Medica, 1981. (International Congress Series No. 551) p. 442–445.
279. PAGE, H.J. and LESTHAEGHE, R., eds. Child-spacing in tropical Africa: traditions and change. London, Academic Press, 1981. 332 p.
280. PAI, D.N. The use of vasectomy as a family planning method in India (past and present). Presented at the Conference on Vasectomy, Colombo, Sri Lanka, October 4–7, 1982. 5 p.
281. PALAN, V.T. Male involvement in family planning: an ESEAOR perspective. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: programme initiatives. London, IPPF, [1984]. p. 18–33.
282. PANDE, B.R. The role of male sterilization in family planning programs. In: Schima, M.E. and Lubell, I., eds. Voluntary sterilization: a decade of achievement. New York, Association for Voluntary Sterilization, 1980. p. 116–121.
*283. PARK, D.E. How Korea turned the tide of male indifference. People 13(1): 22–24. 1986.
284. PARK, H.J., CHUNG, K.K., and HAN, D.S. Role of husbands in family planning. Journal of Family Planning Studies 3: 22–34. April 1976.
285. PARKIN, D.J. The Luo living in Kampala, Uganda, Nairobi and central Nyanza, Kenya. In: Molnos, A. Innovations and communication. Nairobi, East African Publishing House, 1972. (Cultural Source Materials for Population Planning in East Africa, Vol. 2) p. 281–287.
286. PATE, D. (Rush Presbyterian St. Luke's Medical Center, Male Adolescent Program) [Male Adolescent Program activities] Personal communication, October 4, 1986.
287. PATHFINDER FUND. Implementation of vasectomy services in family planning integrated and non-integrated clinics. [Project summary] [1986]. 4 p. (Unpublished)
288. PAULSEN, C.A. Androgen-progestogen combinations. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 300–303.
289. PAULSEN, C.A., BRENNER, W.J., MATSUMOTO, A.M., ADAMS, I.W., and STEINER, R.A. Hormonal approaches to

the regulation of male fertility. [Abstract] Advances in Contraception 2(3): 272–273. September 1986.
290. PEEL, J. A male-oriented fertility control experiment. Practitioner 202: 677–681. May 1969.
291. PEEL, J. The Hull family survey: 2. Family planning in the first 5 years of marriage. Journal of Biosocial Science 4(3): 333–346. July 1972.
292. PEMBERTON, J., MCCANN, J.S., MAHONY, J.D.H., MACKENZIE, G., DOUGAN, H., and HAY, I. Socio-medical characteristics of patients attending a V.D. clinic and the circumstances of infection. British Journal of Venereal Disease 48(5): 391–396. October 1972.
293. PHADKE, G.M. and PHADKE, A.G. Experiences in the re-anastomosis of the vas deferens. Journal of Urology 97(5): 888–890. May 1967.
294. PIERCE, R.M. and ROWNTREE, G. Birth control in Britain: Pt. 2. Population Studies 15: 121–160. 1962.
295. PLANNED PARENTHOOD ASSOCIATION OF THAILAND. FP and FLE to enlist soldiers and metropolitan police communities. [1986]. 3 p. (Unpublished)
296. PLANNED PARENTHOOD FEDERATION OF AMERICA (PPFA). American teens speak: sex, myths, TV, and birth control. New York, PPFA, 1986. 111 p.
297. PLANNED PARENTHOOD OF CENTRAL OHIO (PPCO). A report on Planned Parenthood of Central Ohio's campaign to reach teenage boys. Columbus, Ohio, PPCO, 1983. 3 p. (Mimeo)
298. POFFENBERGER, T. and POFFENBERGER, S.B. The social psychology of fertility behavior in a village in India. In: Fawcett, J.T., ed. Psychological perspectives on population. New York, Basic Books, 1973. p. 135–162.
299. POFFENBERGER, T., POFFENBERGER, S.B., PANDYA, B., PATEL, R., PATEL, S., PARIKH, T., MOHTA, K., and PATEL, M. Husband-wife communication and motivational aspects of population control in an Indian village. New Delhi, Central Family Planning Institute (CFPI), December 1969. (CFPI Monograph Series No. 10) 118 p.
300. POPULATION COMMUNICATION SERVICES. Generic condom promotion in Colombia: final report summary. Baltimore, Johns Hopkins University, Population Information Program, 1986. 5 p. (Mimeo)
301. POPULATION COUNCIL (PC). The Population Council 1985 annual report. New York, PC, 1986. 92 p.
302. POPULATION COUNCIL (PC) and PIACT DE MEXICO (PIATA). Family planning in Mexico: a comprehensive marketing study of awareness, attitudes, and practices among consumers and retailers. New York, PC and PIATA, December 1979. 109 p.
303. POPULATION CRISIS COMMITTEE. Issues in contraceptive development. Population (Washington), No. 15, May 1985. 16 p.
304. POPULATION PROBLEMS RESEARCH COUNCIL (PPRC) and MAINICHI NEWSPAPERS. Summary of fourteenth national survey on family planning. Tokyo, PPRC and Mainichi Newspapers, September 1978. 147 p.
*305. POPULATION PROBLEMS RESEARCH COUNCIL (PPRC) and MAINICHI NEWSPAPERS. Summary of eighteenth national survey on family planning. Tokyo, PPRC and Mainichi Newspapers, August 1986. 175 p.
306. POPULATION PROBLEMS RESEARCH COUNCIL and MAINICHI NEWSPAPERS. Second survey—1952: actual situation of birth control. In: Family planning in Japan. Tokyo, Japanese Organization for International Cooperation in Family Planning, [1972]. p. 134–143.
307. POPULATION SERVICES INTERNATIONAL. Bangladesh distribution log. [Tables] 1986. 6 p. (Unpublished)
308. POSTIC, B., SINGH, B., SQUEGLIA, N.L., and GUEVARRA, L.O. Inactivation of clinical isolates of *Herpesvirus hominis*, types 1 and 2, by chemical contraceptives. Sexually Transmitted Diseases 5(1): 22–24. January-March 1978.
309. POSTON, D.L., Jr. Patterns of contraceptive use in China. Studies in Family Planning 17(5): 217–227. September–October 1986.
*310. POTTS, M. Coitus interruptus. In: Corson, S.L., Derman, R.I., and Tyrer, L.B., eds. Fertility control. Boston, Little, Brown, 1985. p. 299–305.
311. POTTS, M. (Family Health International) [Vasectomy study in South Korea] Personal communication, December 29, 1986.
312. POTTS, M. and DIGGORY, P. The condom. In: Textbook of contraceptive practice. 2nd ed. Cambridge, England, Cambridge University Press, 1983. p. 106–118.
313. POTTS, M. and DIGGORY, P. Traditional methods. In: Textbook of contraceptive practice. 2nd ed. Cambridge, England, Cambridge University Press, 1983. p. 74–83.
314. PROGRAM FOR THE INTRODUCTION AND ADAPTATION OF CONTRACEPTIVE TECHNOLOGY. Condom provides protection against major STDs. Outlook 4(2): 9–10. June 1986.
315. PROGRAM FOR THE INTRODUCTION AND ADAPTATION OF CONTRACEPTIVE TECHNOLOGY. New technologies for predicting ovulation. Outlook 4(3): 8–10. December 1986.
316. PROMOÇÃO DA PATERNIDADE RESPONSÁVEL (PRO PATER) and POPULATION COUNCIL (PC). Medida da eficácia e custo-eficácia da promoção de serviços de vasectomia através de campanha publicitária. [Measuring the effectiveness and cost-effectiveness of promoting vasectomy services through a media campaign.][POR] São Paulo, Brazil and Lima, Peru, PRO-PATER and PC, 1986. 28 p. (Mimeo)
317. QUINN, J. (Ansell Americas) [Condom with larger quantity of spermicide; condom distribution in Africa] Personal communication, February 4, 1987.
318. QUINN, J. (Ansell Corporation) [Quantities of condoms supplied to US Agency for International Development] Personal communication, September 8, 1986.
319. QUINN, J.J. Condoms: manufacturing perspectives and use. In: Zatuchni, G.I., Sobrero, A.J., Speidel, J.J., and Sciarra, J.J., eds. Vaginal contraception: new developments. Hagerstown, Maryland, Harper & Row, 1979. (PARFR Series on Fertility Regulation) p. 67–81.
320. LESOTHO PLANNED PARENTHOOD ASSOCIATION (LPPA). Male motivation. In: 1985 annual report. Maseru, Lesotho, LPPA, [1986]. p. 38–39.
321. RABE, T., KIESEL, L., and RUNNEBAUM, B. Future aspects in contraception: an overview. In: Runnebaum, B., Rabe, T., and Kiesel, L., eds. Future aspects in contraception: Pt. 1. Male contraception. Boston, MTP Press, 1985. p. 1–127.
322. RAHMAN, M. Male involvement in family planning: need—experience. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: programme initiatives. London, IPPF, [1984]. p. 119–126.
323. RAINWATER, L. And the poor get children: sex, contraception, and family planning in the working class. Chicago, Quadrangle Books, 1960. 202 p.
324. REDMOND, M.A. Attitudes of adolescent males toward adolescent pregnancy and fatherhood. Family Relations 34(3): 337–342. July 1985.
325. RICE, F.J., LANCTOT, C.A., and GARCIA-DEVASA, C. Biological effectiveness of the sympto-thermal rhythm method—an international study: a preliminary report. Acta Medica Romana 16(3): 349–356. 1978.
326. RICHARDS, J.H. New wine in old bottles. [Geneva, International Labour Organization, 1986.] 8 p. (Mimeo)
327. RICHARDS, J.H. The ILO Population/Family Welfare Education Programme. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: program initiatives. London, IPPF, [1984]. p. 177–183.
328. RICHARDSON, A.C. and LYON, J.B. The effect of condom use on squamous cell cervical intraepithelial neoplasia. American Journal of Obstetrics and Gynecology 140(8): 909–913. August 15, 1981.
329. ROBERTS, H. Male hegemony in family planning. In: Women, health and reproduction. London, Routledge and Kegan Paul, 1981. p. 1–17.
330. ROCK, J. Calendar rhythm: general considerations. In: Calderone, M.S., ed. Manual of family planning. 2nd ed. Baltimore, Williams and Wilkins, 1970. p. 376–381.
331. ROETZER, J. Fine points of the sympto-thermic method of natural family planning. No. 2. Collegeville, Minnesota, Human Life Center, St. John's University, October 1977. 36 p.
*332. ROSS, J.A., HONG, S., and HUBER, D.H. Voluntary sterilization: an international fact book. New York, Association for Voluntary Sterilization, 1985. 118 p.
333. ROWNTREE, G. and PIERCE, R.M. Birth control in Britain: Pt. 1. Population Studies 15: 3–31. 1962.
334. RUSH PRESBYTERIAN ST. LUKE'S MEDICAL CENTER. For teenage men only: the Male Adolescent Program. [Brochure] Chicago, Rush Presbyterian St. Luke's Medical Center, 1986. 4 p.
335. SANTISO GALVEZ, R. Vasectomy in Guatemala. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: programme initiatives. London, IPPF, [1984]. p. 132–166.
336. SANTOS DE GARZA, Y., DIAZ DE MAY, E., TOWNSEND, J.W., and ROSENHOUSE, S. Operations research to test alternative strategies for providing sex education and family planning services to young adults in Mexico. Presented at the 114th Annual Meeting of the American Public Health Association, Las Vegas, Nevada, September 28–October 2, 1986. 20 p.
337. SARASWATHI, T.S. and GUPTA, R. Fertility, family planning and the status of women. Journal of Family Welfare 32(1): 16–24. September 1985.
338. SCHELLSTEDE, W. (Population Services International) [Condom sales through commercial distributors and the contraceptive social marketing program in Bangladesh] Personal communication, February 11, 1987.
339. SCHMIDT, S.S. and MORRIS, R.R. Spermatic granuloma: the complication of vasectomy. Fertility and Sterility 24(12): 941–947. December 1973.
340. SEETHALAKSHMI, A.G. A study on intra-spouse communication. Bulletin of the Institute of Rural Health and Family Planning 4(3): 59–79. June 1969.
341. SENANAYAKE, P. Male contraception today. In: International Planned Parenthood Federation (IPPF). Male involvement in family planning: programme initiatives. London, IPPF, 1984. p. 187–196.
342. SENEVIRATNE, G. Setting standards for the condom. People 12(1): 35. 1985.
343. SHAH, N.M. The role of interspousal communication in adoption of family planning methods: a couple approach. Pakistan Development Review 13(4): 452–469. Winter 1974.
344. SHAIN, R.N. and JENNINGS, V.H. The influence of sex roles on fertility. In: Shain, R.N. and Pauerstein, C.J., eds. Fertility control: biologic and behavioral aspects. Hagerstown, Maryland, Harper & Row, 1980. p. 277–289.
345. SHAPIRO, E.I. and SILBER, S.J. Open-ended vasectomy, sperm granuloma, and postvasectomy orchialgia. Fertility and Sterility 32(5): 546–550. November 1979.
346. SHEDLIN, M.G. and HOLLERBACH, P.E. Modern and traditional fertility regulation in a Mexican community: factors in the process of decision making. New York, Population Council, September 1978. (Center for Policy Studies Working Papers) 43 p.
347. SHEEHAN, M.K., OSTWALD, S.K., and ROTHENBERGER, J. Perceptions of sexual responsibility: do young men and women agree? Pediatric Nursing 12(1): 17–21. January–February 1986.
348. SHERRIS, J.D. and FOX, G. Infertility and sexually transmitted disease: a public health challenge. Population Reports, Series L, No. 4. Baltimore, Johns Hopkins University, Population Information Program, July 1983. 40 p.
349. SHERRIS, J.D., LEWISON, D., and FOX, G. Update on condoms—products, protection, promotion. Population Reports, Series H, No. 6. Baltimore, Johns Hopkins University, Population Information Program, September–October 1982. 36 p.
350. SHERRIS, J.D., RAVENHOLT, B.B., BLACKBURN, R., GREENBERG, R.H., KAK, N., PORTER, R.W., 3rd, and SAUNDERS, S. Contraceptive social marketing: lessons from experience. Population Reports, Series J, No. 30. Baltimore, Johns Hopkins University, Population Information Program, July–August 1985. 40 p.
351. SIASSI, I. The psychiatrist's role in family planning. American Journal of Psychiatry 129(1): 80–85. July 1972.
352. SIBOULET, A. Maladies sexuelles transmissibles: intérêt des traitements prophylactiques. [Sexually transmitted diseases: importance of prophylactic treatment.] [FRE] Prophylaxie Sanitaire et Morale 44(5): 155–159. November-December 1972.
353. SILBER, S.J. Microsurgery for vasectomy reversal and vasoepididymostomy. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PARFR Series on Fertility Regulation) p. 54–69.
354. SILBER, S.J. Reversal of vasectomy and the treatment of male infertility: role of microsurgery, vasoepididymostomy, and pressure-induced changes of vasectomy. Urologic Clinics of North America 8(1): 53–62. February 1981.
355. SILBER, S.J. Vasectomy and vasectomy reversal. In: Wallach, E.E. and Kempers, R.D., eds. Modern trends in infertility and conception control. Baltimore, Williams and Wilkins, 1979. p. 286–301.
356. SILBER, S.J. Vasectomy and vasectomy reversal. Fertility and Sterility 29(2): 125–240. February 1978.
357. SIMPSON, J.L. Genetic consequences of aging sperm or aging ova: animal studies and relevance to humans. In: Sciarra, J.J., Zatuchni, G.I., and Speidel, J.J., eds. Risks, benefits and controversies in fertility control. Hagerstown, Maryland, Harper & Row, 1978. (PARFR Series on Fertility Regulation) p. 506–519.
358. SINGARIMBUN, M. and MANNING, C. Knowledge and attitudes to family planning and induced abortion. In: Fertility and family planning in Mojolama. Yogyakarta, Indonesia, Gadjah Mada University, Institute of Population Studies, 1974. p. 128–147.
359. SINGH, B. and CUTLER, J.C. Vaginal contraceptives for prophylaxis against sexually transmissible diseases. In: Zatuchni, G.I., Sobrero, A.J., Speidel, J.J., and Sciarra, J.J., eds. Vaginal contraception: new developments. Hagerstown, Maryland, Harper & Row, 1979. p. 175–185.
360. SMITH, J.C., WARREN, C.W., and GARCIA NUNEZ, J. The U.S.-Mexico border: contraceptive use and maternal health care in perspective. El Paso, Texas, United States-Mexico Border Health Association, 1983. 110 p.
361. SMITH, L., Jr., LEWIS, G.L., and LAWSON, J.E., Jr. Male knowledge and use of contraception in three Caribbean islands: results from the 1983 Contraceptive Prevalence Survey. [Tables] Presented at the 112th Annual Meeting of the American Public Health Association, Anaheim, California, November 11–15, 1984. 15 p.
*362. SOCIAL MARKETING FOR CHANGE (SOMARC). CSM-SOMARC project in Mexico. [Washington, D.C., Futures Group, 1986]. 6 p. (Mimeo)
363. SOCIAL MARKETING FOR CHANGE (SOMARC). Ghana CSM program launched. [Brochure] Washington, D.C., Futures Group, [1986]. 4 p.
364. SOCIAL MARKETING FOR CHANGE (SOMARC). IKB-SOMARK project underway. Washington, D.C., Futures Group, [1986]. 6 p. (Mimeo)
365. SOCIAL MARKETING FOR CHANGE (SOMARC). Mexico CSM project: radio campaign for PROTEKTOR condoms. [Project summary] 1986. 3 p. (Unpublished)
366. SOCIAL MARKETING FOR CHANGE (SOMARC). Trip report: Bogota, Colombia: June 23, 1985–June 30, 1985. Washington, D.C., Futures Group, 1985. 8 p.
367. SOCIAL MARKETING FOR CHANGE. Advisory board approves Pakistan SMC marketing plan. Social Marketing Update 6(3): 4. Fall 1986.
368. SOW, F. Men are getting involved. Family Health and Communication (URTNA), No. 2, February 1986. p. 1.
369. SPIELER, J. (US Agency for International Development) [New techniques for identifying the fertile period] Personal communication, October 24, 1986.
370. SPILLANE, W.H. and RYSER, P.E. Male fertility survey: fertility knowledge, attitudes, and practices of married men. Cambridge, Massachusetts, Ballinger Publishing, 1975. 191 p.
*371. STOKES, B. Men and family planning. Washington, D.C., Worldwatch Institute, December 1980. (Worldwatch Paper 41) 49 p.
372. STYCOS, J.M. Birth control clinics in crowded Puerto Rico. In: Human fertility in Latin America: sociological perspectives. Ithaca, New York, Cornell University Press, 1968. p. 66–82.
373. STYCOS, J.M. The Caribbean fertility studies. In: Human fertility in Latin America: sociological perspectives. Ithaca, New York, Cornell University Press, 1968. p. 133–146.
374. SUPANNATAS, S. Birth control among postpartum Thai women. In: Smithsonian Institution. Interdisciplinary Communication Program. Cultural factors and population in developing countries. Washington, D.C., Smithsonian Institution, December 1, 1976. (Occasional Monograph Series No. 6) p. 1–13.
*375. SURVEY RESEARCH INDONESIA (SRI). A qualitative study of DualIma promotion material for T.V./cinema and direct mail (stage 9). Jakarta, SRI, May 1986. 25 p.
376. SURVEY RESEARCH INDONESIA (SRI). A qualitative study on DualIma promotion materials (stage 8). Jakarta, SRI, May 1986. 34 p. (Mimeo)
377. SURVEY RESEARCH INDONESIA (SRI). Condom marketing summary report of available data. Jakarta, SRI, September 1985. 41 p.
*378. SURVEY RESEARCH INDONESIA (SRI). Findings of a qualitative survey on attitudes towards, and knowledge of family planning: Jakarta 1985. Jakarta, SRI, April 26, 1985. 90 p.
379. SURVEY RESEARCH INDONESIA (SRI). Social marketing of contraceptives. Jakarta, SRI, August 6, 1985. 15 p.
*380. SWANSON, J.M. and FORREST, K. Men's reproductive health services in family planning settings. 1986. 29 p. (Unpublished)
381. TATUM, H.J. and CONNELL-TATUM, E.B. Barrier contraception: a comprehensive overview. Fertility and Sterility 36(1): 1–12. July 1981.
382. TETTEKPOE, D.A. Obstacles socio-culturels aux soins de santé en matière de reproduction. [Socio-cultural obstacles to reproductive health care.][FRE] Presented at the Conference on Reproductive Health Management in Sub-Saharan Africa, Freetown, Sierra Leone, November 5–9, 1984. 9 p.
383. TOUFEXIS, A. Ads that shatter an old taboo: fear over AIDS puts condom commercials on TV. Time 129(7): 63. February 2, 1987.
384. TRAUB, F.A. A study of the role of the Yoruba husband in family planning: implications for family planning education. Masters thesis, [University of Ibadan], Ibadan, Nigeria, June 1978. 117 p.
385. TRIAS, M. (Pro-Bienestar de la Familia Colombiana (PROFAMILIA)). [PROFAMILIA men's clinics] Personal communication, September 29, 1986.
386. TRIAS, M. and GOMEZ, F. Vasectomy: what more can be done to make it available and acceptable in Latin America. Presented at 9th General Assembly of the World Federa-

tion of Health Agencies for the Advancement of Voluntary Surgical Contraception, Singapore, October 25, 1986. 12 p.
387. UKAEGBU, A.O. Family planning attitudes and practices in rural eastern Nigeria. Studies in Family Planning 8(7): 177–183. July 1977.
*388. UNITED KINGDOM. OFFICE OF POPULATION CENSUSES AND SURVEYS. Contraception, sterilisation and infertility. In: General Household Survey 1983. London, Her Majesty's Stationery Office, 1985. (Series GHS No. 13) p. 45–59.
389. UNITED NATIONS (UN). DEPARTMENT OF INTERNATIONAL ECONOMIC AND SOCIAL AFFAIRS. World population prospects: estimates and projections as assessed in 1982. New York, UN, 1985. (ST/ESA/SER.A/86) 521 p.
390. UNITED STATES. AGENCY FOR INTERNATIONAL DEVELOPMENT (US AID). BUREAU OF SCIENCE AND TECHNOLOGY. OFFICE OF POPULATION. Third annual resource allocation plan. Washington, D.C., US AID, January 1987. 43 p.
*391. VAN DER MERWE, R.B. and VAN WYK, J.J. Fertility and family planning in Daveyton: survey among men. Pretoria, South Africa, Human Sciences Research Council, Institute for Sociological and Demographic Research, 1982. (Research Finding S.–N.–218) 28 p.
392. VARAKAMIN, S. and SATAYAPAN, S. The Expanded Sterilization Project, National Family Planning Program, Ministry of Public Health. In: Sangsingkeo, V., Muangman, D., Sriburatham, A., and Thunyapon, S., eds. Voluntary sterilization in Thailand. Bangkok, Thai Association for Voluntary Sterilization [1982]. p. 15–29.
393. VARGAS, H. (Pro–Bienestar de la Familia Colombiana (PROFAMILIA)) [Social marketing condom sales] Personal communication, October 2, 1986.
394. VAUGHAN, B., TRUSSELL, J., MENKEN, J., and JONES, E.F. Contraceptive failure among married women in the United States, 1970–1973. Family Planning Perspectives 9(6): 251–258. November–December 1977.
395. VESSEY, M., LAWLESS, M., and YEATES, D. Efficacy of different contraceptive methods. Lancet 1(8276): 841–842. April 10, 1982.
396. VICKERY, B.H., GRIGG, M.B., GOODPASTURE, E.C., BERGSTROM, K.K., and WALKER, K.A.M. Toward a same–day, orally administered male contraceptive. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PAFR Series on Fertility Regulation) p. 271–297.
397. VILLANUEVA MONTOYA, V. and ALFARO JULCA, W. Comportamiento de la población masculina con respecto a la planificación de la familia en Trujillo, Peru. [Behavior of the male population with respect to fa[illegible]/planning in Trujillo, Peru.] [SPA] Boletin de la Oficina Sanitaria Panamericana 85(4): 290–299. October 1978.
398. VLASSOFF, M. Labour demand and economic utility of children: a case study in rural India. Population Studies 33(3): 415–428. November 1979.
399. WADE, M.E., MCCARTHY, P., ABERNATHY, J.R., SUCHINDRAN, C.M., HARRIS, G.S., DANZER, H.C., URICCHIO, W.A., and BRAUNSTEIN, G.D. A randomized prospective study of the use–effectiveness of two methods of Natural Family Planning. Presented at the International Federation for Family Life Promotion Second International Congress, Navan, Ireland, September 24–October 1, 1980. 21 p.
400. WAGATSUMA, T. Japan's long wait for modern contraception. People 13(4): 17–19. 1986.
*401. WAITES, G.M.H. Male fertility regulation: recent advances. Bulletin of the World Health Organization 64(2): 151–158. 1986.
402. WALSH, S.W. Condom sales take a turn: AIDS threat and health issues give boost to once static market. Washington Post, February 15, 1987. p. H1, H6.
403. WEINBAUER, G.F., SURMANN, F.J., AKHTAR, F.B., SHAH, G.V., VICKERY, B.H., and NIESCHLAG, E. Reversible inhibition of testicular function by a gonadotropin hormone–releasing hormone antagonist in monkeys (*Macaca fascicularis*). Fertility and Sterility 42(6): 906–914. December 1984.
404. WEISS, E., AYENI, O., LADIPO, O.A., and BAMGBOYE, F. The acceptance of modern family planning in rural Nigeria: the Oyo State Community–based Health/Family Planning Program in southwestern Nigeria. Presented at the Annual Meeting of the American Public Health Association, November 18–21, 1985, Washington, D.C. 20 p.
405. WELLINGS, K. Defining the problem. In: Bernard, M., ed. Men, sex and contraception. London, Birth Control Trust, 1984. p. 5–15.
406. WELLINGS, K. Men too—a retrospective view of the family planning association's male responsibility campaign. Planned Parenthood in Europe Regional Information Bulletin 15(1): 3–14. Spring 1986.
*407. WELLINGS, K. Men too: a retrospective view of the FPA's male responsibility campaign. March 1986. 36 p. (Unpublished)
408. WESTOFF, C.F., GOLDMAN, N., KHOO, S.–E., and CHOE, M.K. The recent demographic history of sterilization in Korea. International Family Planning Perspectives 6(4): 136–145. December 1980.
409. WESTOFF, C.F., POTTER, R.G., Jr., SAGI, P.C., and MISHLER, E.G. Family growth in metropolitan America. Princeton, New Jersey, Princeton University Press, 1961. 433 p.
410. WESTOFF, L.A. and WESTOFF, C.F. From now to zero: fertility, contraception and abortion in America. Boston, Little, Brown, 1971. 358 p.
411. WHELPTON, P., CAMPBELL, A., and PATTERSON, J. Fertility and family planning in the United States. Princeton, New Jersey, Princeton University Press, 1966. 443 p.
412. WHITE, A.C. England and Wales: services evolving from demand. In: Huber, S.C., ed. Social marketing of vasectomy services: an international review. Queretaro, Mexico, Social Marketing International Association, [1986]. p. 27–36.
413. WILLIAMSON, N.E. Boys or girls? Parents' preferences and sex control. Population Bulletin 33(1): 1–35. January 1978.
414. WINTERS, P. Condom ads aim at AIDS: LifeStyles tries new tack against nets. Advertising Age, December 1, 1986. p. 99.
*415. WOODS, E.T., NICHOLS, D., SHERMAN, J.W.D., GATES, D.S., and HOWARD, J. Reproductive health knowledge, sexual behavior and contraceptive practice among the adolescent population in Monrovia, Liberia. Research Triangle Park, North Carolina, Family Health International, August 1985. 60 p.
416. WORLD HEALTH ORGANIZATION (WHO). SPECIAL PROGRAMME OF RESEARCH, DEVELOPMENT AND RESEARCH TRAINING IN HUMAN REPRODUCTION. Fourteenth annual report 1985. Geneva, WHO, December 1985. 218 p.
417. WORLD HEALTH ORGANIZATION (WHO). SPECIAL PROGRAMME OF RESEARCH, DEVELOPMENT AND RESEARCH TRAINING IN HUMAN REPRODUCTION. Ninth annual report. Geneva, WHO, December 1980.
418. WORLD HEALTH ORGANIZATION. SPECIAL PROGRAMME OF RESEARCH, DEVELOPMENT AND RESEARCH TRAINING IN HUMAN REPRODUCTION. TASK FORCE ON METHODS FOR THE DETERMINATION OF THE FERTILE PERIOD. A prospective multicentre study of the ovulation method of natural family planning: 4. The outcome of pregnancy. Fertility and Sterility 41(4): 593–598. April 1984.
419. WORTMAN, J. The diaphragm and other intravaginal barriers—a review. Population Reports, Series H, No. 4. Washington, D.C., Population Information Program, January 1976. 20 p.
420. WRIGLEY, E.A. Population and history. New York, McGraw–Hill, 1969. 256 p.
421. YEBOAH–AFARI, A. Ghana daddies club together. People 13(1): 21–22. 1986.
422. ZANEVELD, L.J.D. (Rush Presbyterian St. Luke's Medical Center) [Clinical trials with the device] Personal communication, September 18, 1986.
423. ZANEVELD, L.J.D., BURNS, J.W., BEYLER, S.A., DEPEL, W.A., and SHAPIRO, S.W. Development of a new reversible vas deferens occlusion device. In: Zatuchni, G.I., Goldsmith, A., Spieler, J.M., and Sciarra, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PAFR Series on Fertility Regulation) p. 201–208.
424. ZANEVELD, L.J.D., BURNS, J.W., BEYLER, S.A., DEPEL, W.A., SHAPIRO, S.W., and WALLER, D.P. A reversible vas deferens occlusive device: development and evaluation. [Abstract] Advances in Contraception 2(3): 274–275. September 1986.
*425. ZATUCHNI, G.I., GOLDSMITH, A., SPIELER, J.M., and SCIARRA, J.J., eds. Male contraception: advances and future prospects. Philadelphia, Harper & Row, 1986. (PAFR Series on Fertility Regulation) 474 p.
426. ZELNIK, M. and SHAH, F.K. First intercourse among young Americans. Family Planning Perspectives 15(1): 64–70. January–February 1983.

ADDENDA

427. ANONYMOUS. Condom ads slated for TV. Baltimore Sun, February 20, 1987. p. 4D.
428. ALEXANDER, N.J. and CLARKSON, T.B. Vasectomy increases the severity of diet-induced atherosclerosis in *Macaca fascicularis*. Science 201(4355): 538–541. August 1978.
429. ASSOCIATION FOR VOLUNTARY SURGICAL CONTRACEPTION (AVSC). Asia Regional Office, Dhaka, Bangladesh. BAVS vasectomy clinic and national vasectomy program service statistics 1980–1986. [Table] Dhaka, Bangladesh, AVSC, 1987. 1 p.
*430. BURKINA FASO. DIRECTION DE LA SANTE DE LA MERE ET DE L'ENFANT, and COLUMBIA UNIVERSITY, CENTER FOR POPULATION AND FAMILY HEALTH. Du projet de recherche operationnelle: consolidation des services de prestation sanitaire en direction de la famille au Burkina Faso. [Consolidation of Health Delivery Services for the Family in Burkina Faso.] [FRE] New York, Columbia University, December 1986. 96 p.
431. CLARKSON, T.B. and ALEXANDER, N.J. Long-term vasectomy: effects on the occurrence and extent of atherosclerosis in rhesus monkeys. Journal of Clinical Investigation 65(1): 15–25. January 1980.
432. COLEMAN, S. (North Carolina State University) [Combined use of condoms and periodic abstinence in Japan] Personal communication, February 28, 1987.
433. COOK, R.J. and MAINE, D. Spousal veto over family planning services. In press, American Journal of Public Health 77(4). April 1987.
434. COUNCIL ON POPULATION PROBLEMS (CPP). Awakening the housewives—the New Life Movement at Kawasaki Ironworks (Part I). JOICEP Review, No. 3, 1982. p. 3–11.
*435. DAVIDSON, A.R., AHN, K.C., CHANDRA, S., DIAZ-GUERRERO, R., DUBEY, D.C., and MEHRYAR, A. The acceptability of new contraceptive methods for men. Presented at the 113th Annual Meeting of the American Public Health Association, Washington, D.C., 1985. 34 p.
436. FAMILY PLANNING ASSOCIATION OF HONG KONG (FPAHK). Annual report 83/84. Hong Kong, FPAHK, [1984]. 108 p.
437. GOLDBERG, H. (US Centers for Disease Control). [Planned contraceptive prevalence survey in Haiti] Personal communication, January 30, 1987.
438. HATCHER, R.A. and FLOYD, L. It makes good condom sense. [Press release] Atlanta, Georgia, Grady Memorial Hospital Family Planning Program, February 16, 1987. 2 p.
439. INTERNATIONAL PLANNED PARENTHOOD FEDERATION. Irish FPA opens telephone service for adolescents. [Press release, Irish Family Planning Association, January 22, 1985] IPPF Open File, February 1, 1985.
440. INTERNATIONAL PLANNED PARENTHOOD FEDERATION (IPPF). Youth projects: 1982. London, IPPF, October 1983. 52 p. (Mimeo)
441. JANOWITZ, B. (Family Health International) [Ongoing surveys of young people in The Gambia and Zimbabwe] Personal communication, January 27, 1987.
442. LISKIN, L., RINEHART, W., BLACKBURN, R., and RUTLEDGE, A. Minilaparotomy and laparoscopy: safe, effective, and widely used. Population Reports, Series C, No. 9. Baltimore, Johns Hopkins University, Population Information Program, May 1985. 44 p.
443. LOUIS, T. and CISZEWSKI, R. Social marketing—Sri Lanka and Bangladesh. In: Potts, M. and Bhiwandiwala, P., eds. Birth control: an international assessment. Baltimore, University Park Press, 1979. p. 135–151.
444. MORRIS, L. (US Centers for Disease Control). [Survey of husbands in Jordan and surveys of young people in Guatemala and Jamaica] Personal communication, January 13, 1987.
445. NICHOLS, D. (Family Health International) [Survey of men in Bendel State, Nigeria] Personal communication, January 27, 1987.
446. POPULATION AND COMMUNITY DEVELOPMENT ASSOCIATION (PDA). Thai Youth to Youth Project (1980–1985). Bangkok, PDA, 1985. 6 p. (Mimeo)
447. POPULATION CENTER FOUNDATION (PCF). Completed and ongoing adolescent fertility programs and projects. Metro Manila, Philippines, PCF, 1985.
448. RIMON, J.G. (Johns Hopkins University/Population Communication Services) [Marriage license regulation in the Philippines] Personal communication, February 24, 1987.
449. SAR, A. (World Scout Bureau) [Family life education activities among national scout groups] Personal communication, January 15, 1987.
450. STANTON, C. (Westinghouse Institute for Resource Development). [Demographic and Health Survey in Mali] Personal communication, January 14, 1987.
451. SULLIVAN, J. (Westinghouse Institute for Resource Development) [Planned Demographic and Health Survey in Burundi] Personal communication, January 13, 1987.
452. TATA, N.H. Family planning in industry in India. In: International Labour Office (ILO). Regional Office for Asia. Family planning in industry in the Asian region, part II. Some action studies. Bangkok, ILO, Regional Office for Asia, October 1974. p. 1–14.
453. VAN DE WALLE, E. and TRAORE, B. Attitudes of women and men toward contraception in a town in Burkina Faso. Fertility Determinants Research Notes, No. 14, December 1986. 14 p.
454. WORSTELL, M. (The Futures Group) [Condom distribution and manufacture in Latin America] Personal communication, February 11, 1987.

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